

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,
Plaintiffs,

20-cv-651 (GLS/DJS)

v.

ANDREW M. CUOMO et al.,
Defendants.

AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO
ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS'
DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE
AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE

Exhibit 7

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CURRENCY

THE MANY LIVES OF IRON MOUNTAIN

By Joshua Rothman October 09, 2013

THE MANY LIVES OF IRON MOUNTAIN



If you've ever wondered where it all goes—printouts, photocopies, purchase orders, meeting minutes, invoices, correspondence, training manuals, personnel files, audit reports, PowerPoint decks, tax returns, financial statements, contracts; all the *stuff*, in short, that your company produces and is often required, by law, to keep—your answer might be a decommissioned Hudson Valley iron mine called Iron Mountain. “The Mountain,” as employees sometimes refer to it, is a storage facility for a Boston company, also called Iron Mountain, that is one of the most successful document-storage firms in the United States.

On most weekdays, a fleet of trucks and couriers collects materials from offices and delivers them to Iron Mountain's facilities—there are more than a thousand of them worldwide—where they are stored, in some instances, for decades. Factor in non-paper records, such as audio tapes and data cartridges, and it's a huge business. Last year, Iron Mountain had a little more than three billion dollars in revenue. Considered all together, its facilities may house one of the largest repositories of records in the world.

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The Mountain was Iron Mountain's first facility; it opened in 1951. Today, the vast majority of the firm's storage is above-ground, in warehouses, hangars, and nondescript office buildings, but documents still make their way almost daily to Germantown, New York, a quiet village a few miles from the Hudson River. The trucks follow an untrafficked country road lined with apple orchards, eventually reaching the mine, which is set far back from the road, behind a tall, white façade that gives it the look of an old dockside warehouse.

This summer, when I visited, two men met me at the entrance: Bill Mesick, a solidly built man with a matter-of-fact demeanor, and Randy Crego, who is tall and voluble. Both of them had worked beneath the Mountain for decades before taking management positions above ground. (Mesick oversees two underground facilities; Crego is the general manager of Iron Mountain's New York territory.) They led me through the façade's front door and into a surprisingly normal-looking office, with cubicles, a conference room, and a fancy coffee machine. The mine, Crego said, was "like an ant farm," with two hundred and twenty-five individually locked vaults, each with its own combination, on seven underground levels. Today, the former mine functions as a premium facility for Iron Mountain's most demanding clients—usually clients who want to store "vital" records or objects, things that are irreplaceable or secret.

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Documents arrive through the facility's neatly-organized loading dock. Chet Smith, a soft-spoken Iron Mountain veteran, sat at a workstation, affixing bar codes to a stack of cardboard boxes,

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inspecting a padded case full of laboratory slides, and managing a database of the Mountain's contents. Most of the time, Smith explained, he has only the vaguest idea of what the boxes contain. ("This one," he said, pointing to the slides, "is tissue samples—that's all I know.") But he knows the mine itself by heart. After working there for thirty-five years, Smith has memorized "about eighty per cent" of the vault's combinations. "Our customers," Crego told me later, "would die for an employee like Chet Smith: look at that longevity, that loyalty." Along with security clearances and background checks, long-term employees are one way that Iron Mountain insures security.

Today, the Mountain is filled, in large part, with colorless corporate documents. But it wasn't always so. As we walked farther inside, toward the vaults, Mesick told me about the nineteen-seventies and eighties, when the firm safeguarded interesting objects with intrinsic value. The Mountain has stored musical instruments, valuable antiques, and celebrity memorabilia. One client, "Madame X," was an anonymous art collector. Once a year, she'd visit with a curator, lay out a spread of wine and cheese, and admire her paintings underground. Later, Mesick and Crego pointed out an old photograph: it shows two men carrying Monet's "Boating on the River Epte" through the mine's interior entrance, a bank-vault door weighing twenty-eight tons.

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That door is still installed—a single person can move it, but just barely—and as we passed through it the air grew noticeably cooler, and a vast, roaring sound drowned out our footsteps. This was the sound, Crego explained, of the industrial-strength dehumidifiers that

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dry out the damp interior of the mine. Inside, the facility is immaculate. The corridors, which trace long, angled shapes and sometimes slope up or down, are freshly painted. The vaults, which line the corridors, are numbered and color-coded. You can sense the original outlines of the iron mine in today's odd, sprawling floor plan. Mesick and Crego opened up a few of the vaults. One, which belonged to a county government, held endless drawers of birth and death certificates. Another was empty except for two large, slightly sinister freezers: one contained D.N.A. samples, while the other, empty, served as a backup for the first. At the end of a long hallway, a lonesome room contained a small data center; another room nearby held records from East River Savings Bank, Iron Mountain's first customer. Some of those records had been deposited during the Truman Administration; E.R.S.B. now belongs to a much larger bank.

Aside from the whoosh of the ventilation and the echoes of our voices, it was perfectly silent. Mesick and Crego had both worked security in the Mountain as younger men—a guard goes on a solo walk through the whole facility every two hours—and they agreed that it could get “spooky” down there. (“You hear sounds that you don't want to hear,” Crego said—perhaps rocks falling on the roof. “It's like, What was that? I don't know, and I don't know if I want to!”) Half-century-old photographs show security guards standing in the same doorways, walking the same halls. In the sixties and early seventies, Mesick said, people sometimes slept in the mine: it contained fallout shelters, built and maintained by Iron Mountain for executives from Exxon, Shell, and other big companies. One especially elaborate shelter, he said, had sixty-five hotel rooms, each with a private bath, and a large cafeteria with a commercial kitchen; in the mid-century-modern bedrooms, curtains obscured the concrete. According to Mesick, in the event of nuclear war, some executives, along with their families, would have been evacuated by helicopter from New York City. “They'd hired local folks to tend to them, to cook for them, to clean for them,” Mesick told me. “Their idea was to wait out the storm while the debris and radioactivity were going on overhead—then they were going to come out and sell oil to everyone who was left.” Every now and then, Mesick recalled, the executives would run a “live exercise”—essentially, they'd come and hang out for the weekend. Even though he had thought the plan “a

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little strange,” he was grateful for the shelter’s protection. Had war broken out, he might have brought in his own family. “We’re a lot closer to this facility than those executives were,” he pointed out, “and I’ve got the key to this place.”

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There are corners of the mine, meanwhile, where you can see even older layers of history. One stairway, marked NOT AN EXIT, led to an unfinished, cavern-like area, where the air smelled of old rock and fresh water. According to Iron Mountain’s corporate history, in the nineteen-thirties and forties, the company’s founder, a German-American entrepreneur named Herman Knaust, took advantage of the mine’s darkness and moisture, and grew mushrooms in it. At that time, his company, Knaust’s Cavern Mushrooms, may have been the largest producer of mushrooms in the world, and Knaust was widely known as “the mushroom king.” (In 1944, *The New Yorker* wrote about Knaust’s mushroom caves in an article called “A Strange Place to Be Growing Things.”) Knaust moved into the storage business only when, after the Second World War, American mushroom growers started losing ground to scrappy competitors from Europe and Asia. He brought a flair for publicity to his new company, which he called Iron Mountain Atomic Storage. Knaust purchased the twenty-eight-ton bank-vault door from a bankrupt bank in Ohio—he paid a dollar for the door, and twenty thousand to ship it—because he thought it gave the mine a Fort Knox atmosphere. He hired a dozen ex-cops, armed them with Colt .45s, and stationed them as guards. He put in an underground generator because, he told the *Wall Street Journal*, “If we got into an atomic war, we might need that power.” He made boastful but accurate predictions, telling the *Journal*, “This business will mushroom.”

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Before that, Mesick and Crego told me, in the nineteenth century, iron from the mine had been used to make horseshoes. During the Civil War, it was made into canons and cannonballs. Out in the cave, there were signs of the mine's original life. Rust-colored chunks of ore, dark and irregular, jutted from the walls.

* * *

It's hard to say what Iron Mountain might look like a half-century from now. Over the past few decades, two factors have driven the company's rapid growth: the advent of personal computing, which led to an explosion in the production of paper documents, and tougher regulations, which have compelled companies to keep those documents for longer periods. The business is based on recurring revenue from long-term customers. In May of 2013, the company's shares traded at forty dollars, an all-time high. (In recent months, its shares have fallen—partly because of uncertainty over whether the I.R.S. will approve the company's request to convert itself into a real-estate investment trust, and partly because of the recent departure of its C.F.O., Brian McKeon.)

The regulatory trend seems likely to continue. Sue Trombley, director of consulting at Iron Mountain, described to me the complex "life cycle" that many Iron Mountain records must go through. As a document manager, she said, your goal is to keep documents for as long as you have to, and then to destroy them as soon as you can, both to save on storage costs and to limit the scope of any future legal proceedings. "But it's not as simple as, 'You create a record today, and in sixty years you get rid of it,'" she said. "Retention rules are tricky."

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Some documents must be kept for a certain number of years after an ongoing business relationship comes to an end. Some current customers plan to keep their records stored for three quarters of a century. Other clients—government agencies that store birth certificates, for example—have no plans to remove their documents.

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The technological future, meanwhile, is more uncertain. In the nineteen-thirties, Buckminster Fuller used the term “ephemeralization” to describe one major effect of technology: over time, he thought, productivity would come to depend less on the construction of new physical objects, like factories and equipment, and more on new information, which doesn’t have a permanent, physical footprint. Iron Mountain embodies the opposite of ephemerality. It seems to be everything “the cloud” isn’t. (When I asked Dan O’Neill, the company’s director of corporate communications, to tell me about Iron Mountain’s biggest room, he described a converted airplane hangar in northern New Jersey: “Imagine the length, the height of an airplane hangar that’s floor to ceiling documents. You can’t see to the other end of it.”) The threat posed to Iron Mountain’s business by digital storage is two-fold: it’s not just that digitized documents are physically smaller, but that they can exist in several places at once. In 1997, fires swept through three Iron Mountain facilities in New Jersey; in 2005, they struck warehouses in Ottawa and London. Iron Mountain invested in better fire-protection systems in some of its facilities, but there is always an irreducible risk inherent in the storage of any unique physical object. Digital storage, one imagines, might let companies transcend that risk; in theory, it could reshape Iron Mountain’s business.

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And yet even digital storage is still, ultimately, physical. Although it's a smaller player in the data-center business than firms like SunGard and Digital Realty, Iron Mountain is trying to build up its offerings. And separately, it has, over decades, developed a different area of expertise: the storage of data that doesn't belong in a data center. After we'd explored the Mountain, Crego and Mesick took me to another underground facility, an old limestone mine located thirty miles south of Germantown, in Rosendale, New York. In a caravan, we drove into a huge man-made cave. The ceilings were high enough to collect their own lacy fog. Four underground buildings were filled with master recordings from Sony Music Entertainment, much of it in the form of two-inch audiotapes. One building held the video archive of World Wrestling Entertainment; nearby, another collection, which focussed on one of New York's baseball teams, contained around fifty thousand tapes (not just Major League games but farm-team games, too).

Eventually, Crego led me to a collection of shelves specially designed for magnetic data cartridges. It held three hundred thousand cartridges; each one, Crego said, represented a tractor trailer's worth of paper. In the future, some new storage technology may allow the same vault to hold a thousand times as much data. But who's to say that its occupant—a Connecticut insurance firm—won't want to fill that up, too? Among other things, Iron Mountain's history testifies to a psychological fact: emptiness is irresistible. When people discover empty spaces, they find a way to use them.

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Exhibit 8

JANUARY/FEBRUARY 2010
POLICY REPORT

The Criminalization of Almost Everything

W. *EN LAWS GROW SO VOLUMINOUS AND VAGUE THAT THEY*

oppress those who live under them, society can become as unlivable as if it were lawless.

Subject to the arbitrary scrutiny of prosecutors overcome by ambition for their own

*15 minutes of fame, ordinary citizens face the horrors of becoming criminal defendants. At a Cato Book Forum in October, Harvey Silverglate, author of *Three Felonies a Day*, and Tim Lynch, editor of *In the Name of Justice* and director of Cato's Project on Criminal Justice, discussed the growing threat of federal criminal law.*

HARVEY SILVERGLATE: An average, busy professional gets up in the morning, gets the kids to school, goes to work, uses the telephone or e-mail, has meetings, works on a prospectus or bank loan, goes home, puts the kids to bed, has dinner, reads the newspaper, goes to sleep, and has no idea that, in the course of that day, he or she has very likely committed three felonies. Three felonies that some ambitious, creative prosecutor can pick out from that day's activities and put into an indictment.

In his foreword to my book, Alan Dershowitz discusses his time litigating cases in the old Soviet Union. He was always taken by the fact that they could prosecute anybody they wanted because some of the statutes were so vague. Dershowitz points out that this was a technique developed by Beria, the infamous sidekick of Stalin, who said, "Show me the man and I'll find you the crime." That really is something that has survived the Soviet Union and has arrived in the good old USA. "Show me the man," says any federal prosecutor, "and I can show you the crime." This is not an exaggeration.

How does this play out in the United States? To some extent, the weapon is aimed at unpopular citizens and groups. It isn't the primary impetus, but it is certainly a tool, for example, for going after Muslims or any political opponents who seem to be standing in the way of a prosecutor's political ambitions. For the most part, though, these prosecutions are random. They sometimes have to do with the ambitions of prosecutors and sometimes there are prosecutors who think it's their job to clean up the world or country. But, fundamentally, I don't understand the motives behind the use of these weapons. I'm not a sociologist, I'm not a psychiatrist or psychologist, I can just tell you that these weapons are sprung with alarming and increasing frequency.

I predict that we will see, in the next couple of years, a tidal wave of prosecutions growing out of the financial crisis. Different people from different perspectives have different explanations of why we had a crash. But the Department of Justice is going to have figured it out: fraudulent individuals caused all this. It had nothing to do with government regulation. It had nothing to do with culture. It was individuals who have committed crimes that caused all our woes.

Take an example of what I think is comic: During the height of the crash, bank officers, bank presidents, and brokerage officers talked to the press around the clock, because the press was inquiring: "Is your bank about to go?" "Are you sufficiently liquid?" These bank officers and presidents kept saying, "As far as I can tell right now we are liquid, we'll make it through this, I think we're going to be okay." There will be a lot of prosecutions of bank officials because they had the temerity to predict that their bank was going to make it through okay — when, of course, it didn't.

Think about a bank president being asked, "Are you liquid? If your depositors wanted to withdraw money tomorrow would they get it?" What's he supposed to say? If he says "No," then there's an immediate rush on the bank. No officer of a bank can possibly get up there and say, "We're gone." Because then they are gone. If he can maintain confidence then the bank will make it through. Watch for these prosecutions. They're coming.

How do I know this? Because it has already happened. Everybody knows about Martha Stewart. She was indicted not for insider trading, because what she did probably was not insider trading. Martha Stewart had one count in her indictment, which charged that when she was under investigation for insider trading she had a press conference in which she released a statement saying she was not guilty of insider trading. So, in addition to indicting her for false statement to the Feds, they indicted her for falsely denying her guilt at a press conference. In other words, her crime was her failure to make an abject plea of guilty on national television, in front of the entire press, when asked about whether she had committed insider trading fraud. We're living in a world that's a mixture of Orwell and Kafka.

The solution to this problem is going to arise from an energized response from those people who love and value liberty. Cato, of course, is part of that group, which is why I'm so pleased to be here today. I think the coalitions that Cato is building and participating in, which are nonpartisan (left, right, and center) in the criminal justice arena are very useful and lead the way. We all have to work together on this. Perhaps we can beat back Leviathan.

TIM LYNCH: It is my unhappy responsibility to inform you that things are even worse than Harvey Silverglate says.

But let me back up and ask a basic question. What do we want from our criminal justice system? Boiled down, we want the government to have enough power to identify and remove criminals from peaceful civil society, but not so much power that it oppresses the rest of us. But that seems to be what is happening today.

The power wielded by police and prosecutors is immense. We have to remember that all it takes is one raid on a home or a business, one high profile arrest, or an indictment that's announced on the steps of a courthouse, and a person's life can be changed forever. Reputation gone. Jobs gone. Friends gone. And that's even before one gets the opportunity to defend himself in a court of law. And once you find out how much it's going to cost you to defend yourself in a court these days, you'll find that you're facing financial ruin. Retirement savings gone. Children's college fund gone. And, most likely, house gone.

If you combine the situation that Harvey Silverglate described with a system where our constitutional rights have been watered down, you'll begin to see how dangerously powerful the government has become. And how vulnerable all of us are to agencies like the IRS and all the others in the federal government, as well as the local law enforcement bureaucracies. There was a time where you could live your life and order your affairs in such a way that you could drastically reduce your exposure to arrest and indictment. Those days are gone. This is an issue that should concern people from all points along the political spectrum.

We are drifting away from the basic constitutional and legal principles that have made the American justice system the best one in the world. Let me begin with the constitutional principle of federalism. In this city, it is considered almost impertinent to remind Senators, and people who work on the White House staff, that the powers of the federal government are actually limited to those spelled out in the Constitution. For much of our history, crime-fighting was understood to be an issue for local government. But, over the years, Congress continued to pass more and more federal criminal laws. Those laws are based on a dubious reading of the Commerce Clause of the Constitution.

One of the most recent proposals that has been in the news lately is a ban on so-called “hate crimes.” They call it the “Hate Crimes Prevention Act.” But if you think about it for just a moment, you’ll realize that this law isn’t going to prevent anything. A criminal who is already inclined to shoot another person, or stab another human being, is not going to stop because Congress has passed the Hate Crimes Prevention Act. That idea is pure fantasy. It’s not going to prevent any hate crime from happening. These pieces of legislation simply give members of Congress the opportunity to posture as problem solvers.

Closely related is the constitutional safeguard against double jeopardy, the idea that nobody should be tried twice for the same offense. But every time Congress federalizes something that’s already on the books at the state or local level, the double jeopardy protection is weakened because of legal precedents that say that the federal government and state governments are separate sovereigns. Those precedents allow federal prosecutors to come back with a federal indictment even after someone has been tried in the state court system. In the beginning this wasn’t much of a problem because there were only a handful of federal crimes. But as the number of federal crimes increases, the double jeopardy protection is weakened.

The next safeguard under assault is the jury trial. The Sixth Amendment to the Constitution says that in all criminal prosecutions, the accused shall have the right to trial by jury. Reading this, you could easily get the misleading impression that most of our criminal cases are adjudicated by juries, but that’s not the system that we have. We’ve moved over to a system of charge and sentence bargaining. You do see the occasional trial on TV, but those are the exceptional cases. More than 95 percent of the criminal cases in America do not go to trial but are instead resolved through plea bargains.

Our courthouses are filled with majestic courtrooms but they’re vacant most of the day. The real action is out in the hallways where prosecutors bargain with defense counsel in plea negotiations. Plea bargaining rests upon the legal fiction that the government does not retaliate against people who want to take their case to trial. What they do say is: “Look, if you take the deal and plead guilty you’ll get a year. If you insist on going to trial, we’re going to throw the book at you — you’ll be looking at 20 years.” With that kind of pressure, most people cave in and plead guilty. A federal judge in Massachusetts, William Young, wrote in one of his rulings, “Criminal trial rates in Massachusetts and the country at large are plummeting due to the simple fact that nowadays we punish people — and punish them severely — simply because they want to take their case to trial.”

The Sixth Amendment also guarantees our right to a speedy trial. But this is another protection that is being watered down. There was a case in North Carolina a few years ago where a man pointed out to the courts that he’d been in jail for four years and had not yet had a trial. Surely, he said, four years is a blatant violation of the speedy trial guarantee. The government attorneys came back and said, “Not so fast. Our courthouses are clogged with cases and we’ve had some staffing shortages. Because we’ve been experiencing these problems — and haven’t acted with any particular vindictiveness against this particular guy — the Constitution was not violated.” The appellate court agreed — but two justices on the North Carolina Supreme Court filed a strong dissent. They said that the speedy trial guarantee goes all the way back to Magna Carta, and that no one in the state would consider a four-year delay acceptable if their spouse had been involved or if their son or daughter had been involved. They asked, “What happens if the congestion in our courts continues or gets even worse? Where are we going to be in ten years? Are eight-year delays going to become an acceptable norm in our jurisprudence?” The majority of the North Carolina Supreme Court did not respond. The Fifth Amendment says that no one can be deprived of their liberty without due process of law. But there are very harsh theories of “strict liability” that have been creeping into our law, which, boiled down, mean that the circumstances don’t matter. If certain basic facts can be shown, then the defendant is guilty and cannot bring any additional facts into court to show the jury.

A few years ago a man was replacing carpeting in a room he was renting. As he was ripping up the carpet, he found a bullet. So he took it, put it in a dish on the dresser, and forgot about it. Months later he got into a dispute with his ex-girlfriend. She had called the police and accused him of taking some of her personal possessions. He let the police into his room so he could show them that he didn't have whatever property she'd accused him of having. As the police were looking around, they found the bullet in the dish in his bedroom. He is now serving a 15-year mandatory sentence for possessing the bullet, because there is a federal law that says felons cannot possess ammunition. He had a felony record, but was back in the community trying to reestablish himself.

He had a felony record — there's no disputing that — and he explained to the police the circumstances in which he'd found the bullet and why he'd put it on the dresser. But he was a felon and the bullet was in his bedroom. There was nothing more he could tell the jury to escape liability. That's how harsh these theories of strict liability are. People cannot show the jury that they acted in good faith, or explain the circumstances in which things happen. This is another disturbing legal trend.

Finally, we can't have a discussion at the Cato Institute about the criminal justice system without talking, at least briefly, about drug policy. It seems to me that policymakers today are making all the same mistakes we made with alcohol prohibition. Alcoholism was, and is, a serious problem, but the ban was totally counterproductive. People continued to drink, gangster organizations got rich off the black market, and all we got was a lot of crime and corruption. We're seeing the same thing today with drug crimes. Drug addiction is a problem, but the drug war is counterproductive. We're pouring billions of dollars every year into this war, but it hasn't stopped drugs from coming into the country, hasn't stopped people using drugs, and hasn't kept drugs away from our schools. What we have experienced is a lot of crime, corruption, and curtailment of our civil and constitutional rights.

The drug laws have created a cruel lottery system of arrest and incarceration. Some people, like our own President Barack Obama, have won the drug enforcement lottery in that they've escaped arrest and gone on to live successful lives. But thousands of others have lost the drug enforcement lottery, and they are the ones who get a criminal record and often serve jail time. Their lives are fundamentally altered. The conservative William F. Buckley Jr. and the economist Milton Friedman were right: the sooner we end the drug war, the better.

To conclude, let me express my agreement with those who say that America has the best criminal justice system in the world. But we have to take a sober, clear-eyed view of the trends that are underway. We are drifting away from our basic constitutional principles. The key question is what the American justice system is going to look like 20 or 30 years from now. The principles I've been discussing — federalism, jury trial, speedy trial, double jeopardy — are as important today as they were 200 years ago. It is imperative that we come to the defense of these principles, because, if we don't, we're going to lose them. And if we lose these procedural guarantees, then we will lose the free society that they were designed to secure.

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Exhibit 9



HARVARD Kennedy School
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Nazi troops crossing the Soviet border during Operation Barbarossa, 22 June 1941. Nazi Germany's invasion of the Soviet Union was one of the worst intelligence failures in history.

 ANALYSIS & OPINIONS – *The Huffington Post*

Trump Risks Making Stalin's Disastrous Mistake On Intelligence Analysis

Author: Calder Walton | May 04, 2017

For a president already inclined to conspiracy theories, relying on raw intelligence risks feeding Stalin-style paranoia.

Amid the dizzying cycle of news emerging about Russian connections with President Donald Trump's White House, which the president has done his best to distract attention from, there was a recent story that received less attention than it deserves: the White House has reportedly requested more raw intelligence from U.S. agencies and less analytical reporting.

History suggests that it is extraordinarily dangerous for any senior policymaker — let alone a president like Trump, who is inclined to see intelligence conspiracies against him — to have access to raw intelligence data. In fact, history is littered with examples of when doing so leads to catastrophic intelligence failures.

At its most basic level, intelligence agencies are supposed to act as assessment filters between collected raw information and government decision-makers. Their function is to provide policymakers with objective assessments based on information they have collected, verified and assessed. To function effectively, intelligence agencies need to be able to tell government officials what they do not want to hear — and those officials need to be willing to listen.

A leader who accesses raw intelligence risks short-circuiting this entire enterprise, bypassing agencies that are supposed to prevent partial assessments. An inevitable risk is that a decision-maker with access to raw data that has not been professionally assessed will look for information that confirms his or her preexisting beliefs. Far from intelligence agencies telling leaders what they do not want to hear, in these circumstances, intelligence risks becoming self-fulfilling sycophancy.

Throughout history, it has generally been authoritarian leaders who have desired raw intelligence. There is no clearer example than the Soviet Union under Joseph Stalin, who acted as his own supreme intelligence analyst. Stalin steeped himself in minutiae of intelligence collection, often scrutinizing and commenting on individual agent reports. He demanded raw intelligence, not analysis: "Don't tell me what you think," Stalin reportedly said. "Give me the facts and the source!"

It is no coincidence that in the 1930s, Soviet foreign intelligence did not even have an analysis department. The fundamental problem was that while Soviet agents were astonishingly good at collecting intelligence, Stalin's assessment of it was fatally undermined by his conspiratorial mindset. In the pre-war years, Stalin was more paranoid about Britain, mostly because of British intrigues against the young Soviet regime after 1917, than he was about Nazi Germany, with which he had signed a non-aggression agreement in 1939. Stalin could not fathom that Hitler would betray him.

In the six months before Hitler's attack on the Soviet Union, Stalin dismissed more than 100 warnings about it from Soviet intelligence. Just days before the attack, Stalin rejected a warning from a well-placed Soviet agent in Germany: "You can tell your 'source' in German air force headquarters to go f**k himself. He's not a 'source,' he's a disinformant."

Stalin similarly spurned warnings from a high-level Soviet military intelligence agent in the Far East about the German attack as disinformation from a lying "shit." The day before the invasion, Stalin's intelligence chief, Lavrenti Beria, probably acting on Stalin's instructions, ordered four Soviet intelligence officers who had patriotically sent reports to Moscow about the German invasion to be "ground into concentration camp dust." Stalin also dismissed as "disinformation" British Prime Minister Winston Churchill's warnings about the German invasion, which Churchill obtained from intercepts by British codebreakers at Bletchley Park.

Nazi Germany's invasion of the Soviet Union was one of the worst intelligence failures in history, for which Stalin, who acted as his own intelligence overlord, bears primary responsibility. Even after June 1941, when the Soviet Union entered the war on Britain and America's side, Stalin continued to view his new allies with paranoia, and he fed his demons by reading raw intelligence reports about them.

Perversely, Stalin obtained greater intelligence successes against his wartime allies, Britain and America, than he did against his wartime enemies, the Axis powers. The Soviet leader immersed himself in intelligence reports from the most successful wartime Soviet agents operating in the West — the five so-called Cambridge spies — who penetrated to the heart of the British secret state.

However, at precisely the point in the war when the Cambridge spies were their most productive, providing Moscow with volumes of top-secret British material, Stalin rejected their intelligence,

insisting they were part of a vast British deception plot. In reality, such a plot did not exist. Stalin even dispatched a Soviet surveillance team to London to monitor the five Cambridge spies and unmask their "deception." If Soviet intelligence had been able to provide Stalin with objective reporting, and he had not obsessively acted as his own intelligence assessor, he would have realized that in reality, they were the most successful Soviet agents ever recruited in a foreign country.

It would be misleading, however, to suppose that it is only leaders of authoritarian regimes who abuse intelligence by pillaging raw information to suit their own ends. In some ways, the same happened in Britain during the war. Churchill has rightly gone down in history as one of the great champions of British intelligence. It is not an exaggeration to say that he created the modern British intelligence community. Churchill was obsessed with the intelligence world and attached greater importance to it than any previous British leader.

However, Churchill's enthusiastic involvement in intelligence sometimes turned into interference and outright meddling. He became Britain's wartime leader just as the flow of intelligence from Bletchley Park, which had broken the German Enigma code, grew into an unprecedented torrent. Churchill demanded to see not just summaries and appreciations of Bletchley Park intelligence, but raw decrypts in their original form. This caused alarm among his intelligence chiefs, who painfully remembered that after the First World War, Churchill had exposed British codebreaking secrets by publicly discussing them. It was only with difficulty that the MI6 chief, Sir Stewart Menzies, persuaded Churchill that he should not see everything and instead delivered selections of Bletchley decrypts to him daily.

However, Churchill's continued "prodding" on the basis of the decrypts he received continued to exasperate and distract his senior intelligence officials. The chief of Britain's imperial general staff, Alan Brooke, ramped up his briefings from Bletchley Park from one to three or even four times a day to help deflect Churchill's harebrained schemes when they arose. Members of his war cabinet fulminated in their diaries about Churchill's late-night, often alcohol-fueled "red herring" plans derived from raw intelligence.

Closer to our own time, Britain and America's intelligence failures in 2002 and 2003 concerning weapons of mass destruction in Iraq are a damning warning about the consequences of intelligence aligning too closely with policymaking. The enormous and long-awaited official inquiry into Britain's involvement in Iraq, the Chilcot Report, reveals a complete breakdown in Britain's intelligence machinery before the Iraq invasion. On Tony Blair's comfortable sofas at 10 Downing Street, policymakers became too cosy with their intelligence chiefs, who failed to provide accurate and robust assessments of Iraq's weapons programs. Blair's government used intelligence to support its policy in Iraq — intelligence did not challenge that policy, as it should have done. Critics have said the same occurred in the White House.

There are countless further historical examples of when leaders have used and abused intelligence by accessing raw intelligence and acting as their own assessors. In fact, it is difficult to think of any example of when a leader doing so has been beneficial in the long term.

The removal of Trump's far-right ideologue strategist, Stephen Bannon, from the principals committee of the National Security Council is a welcome move away from the dangers of politicized intelligence. Bannon's position as a political adviser at the council's highest level was without precedent, and his removal restores the council to its traditional, non-politicized role. Trump's deputy national security adviser, K.T. McFarland, a former Fox News commentator, is also expected to step down. This may be the work of Trump's new national security adviser, H.R. McMaster, whose views on the dangers of military and intelligence sycophancy are well known: he literally wrote a book on telling truth to power.

The inner circles of Trump's White House now seem to be in turmoil amid palace intrigues between Bannon and Trump's son-in-law, Jared Kushner. In these tumultuous circumstances, there is a risk of Trump receiving and listening to alternative intelligence. Although Bannon has been removed from the National Security Council, for now, at least, he retains Trump's confidence — and his security clearance.

Meanwhile, Kushner's foreign affairs portfolio is extraordinarily broad — despite lacking any previous experience. He also holds a security clearance, despite failing to disclose Russian contacts on his security clearance forms. The positions of Bannon, Kushner and other close Trump advisers in the White House are why its reported requests for more raw intelligence and less analysis are potentially so important. If his advisers start to provide Trump with their own analysis of raw intelligence, which they are entitled to receive, there are good reasons to expect the president will listen.

Trump's use and abuse of raw intelligence already seems to be happening. The republican chair of the House intelligence committee, Rep. Devin Nunes (R-Calif.), has had to step aside from the House investigation of Trump's connections with Russia reportedly because he obtained and publicized misleading raw intelligence about Trump's unsubstantiated claim that Obama "wiretapped" him. Nunes obtained the raw intelligence with help from two White House officials. He now faces an ethical investigation on grounds that he mishandled intelligence.

It is clear why alternative intelligence, like alternative facts, would be appealing to Trump. He distrusts U.S. intelligence and already has historically bad relations with the intelligence community — no other U.S. president has compared U.S. agencies to Nazis. He tends to dismiss views contrary to his own as "fake news." And his opinions on world affairs seem largely informed by television, not intelligence briefings. In this atmosphere, although the National Security Council is now in a position to tell truth to power, it may find itself bypassed by others in the White House or the media who provide the president with pleasing alternative intelligence. In Trump's White House, it seems, the council risks being bypassed precisely *because* it tells truth to power.

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Exhibit 10

ABC NEWS**Licio Gelli: Masonic grand master linked to Mafia murder of 'God's banker' Roberto Calvi dies aged 96**

Posted Wed 16 Dec 2015 at 9:27pm

Licio Gelli, a masonic grand master implicated in some of the darkest chapters of Italy's post-war history and one of the worst scandals to rock the Vatican, has died at the age of 96.

Gelli, a fascist sympathiser who was the founder and leader of the notorious P2 masonic lodge passed away on Tuesday evening at his villa in Arezzo, Tuscany, his family said, according to local media.

P2, or Propaganda Due, was an influential secret network that counted politicians, judges, bankers and senior military figures amongst its members.

Its tentacles stretched throughout the upper echelons of the Italian establishment, although an attempt to have its members jailed for political conspiracy and attempting to destabilise the state finally failed in 1994.

It is best known internationally for having been at the heart of a murder mystery involving both the Mafia and the Vatican which centred on the death of "God's banker" Roberto Calvi, who was found hanging beneath London's Blackfriars bridge in 1982.

Despite being outlawed in 1981, the lodge was later shown to have been involved in a major 1990s political corruption scandal known as tangentopoli (bribesville) and the creation of an anti-communist paramilitary group, Gladio.

But its global notoriety is largely down to its role in the collapse of the Vatican-linked Banco Ambrosiano.

The death of Calvi, the bank's chairman and a P2 member, was initially deemed to have been a suicide.

But subsequent investigations pointed to it having been a murder which Italian prosecutors believe was the work of the Sicilian Mafia.

The organised crime syndicate had used Ambrosiano to recycle funds, some of which were moved out of Italy via the Vatican bank.

No-one was ever convicted for carrying out or commissioning Calvi's murder.

Gelli was investigated over the death but never formally indicted. The location of Blackfriars bridge was seen as indicating a link to P2 because members of the illegal group referred to themselves as 'frati neri', Italian for 'black friars'.

Fascist fighter was accused of working for CIA in anti-communist program

Around the time of P2's outlawing, Gelli fled to Switzerland. He was arrested there in 1982 but subsequently escaped from prison and was a fugitive until 1987.

Switzerland agreed to extradite him for prosecution for his role in the Ambrosiano collapse.

First convicted in 1982, his sentence was not finally confirmed until April 1998 and he was allowed to serve that term and several others under house arrest, which he remained under until his death.

New charges of huge tax fraud were filed against him two years ago and the state has taken ownership of his villa, where, in 1982, police seized 179 gold ingots weighing 168 kilograms.

Born in Pistoia, Tuscany on April 21, 1919, Gelli first became involved in politics as part of Benito Mussolini's fascist movement, and volunteered to fight with future dictator General Francisco Franco's forces in the Spanish Civil War.

He fought briefly with Italy's anti-Nazi resistance, the Partisans, at the end of World War II, but later joined the neo-fascist MSI political party.

According to Italian media, Gelli worked for the CIA during the war, a time when the US secret services also enlisted the help of the Mafia in an effort to counter the influence of one of Europe's biggest Communist parties.

Having joined the freemasons in the 1960s, Gelli founded the P2 lodge in 1970 and by the time it was outlawed 11 years later it had at least 962 members, according to a list seized from his villa.

The most prominent figure known to have been in the shadowy group was Silvio Berlusconi, the media tycoon who was to go on to become prime minister.

Gelli also spent part of the 1970s in exile in Argentina, where he forged close links to the generals who installed a military dictatorship in 1976.

Reuters

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Exhibit 11

THE CABLE

U.S. Repeals Propaganda Ban, Spreads Government-Made News to Americans

For decades, a so-called anti-propaganda law prevented the U.S. government's mammoth broadcasting arm from delivering programming to American audiences.

BY JOHN HUDSON | JULY 14, 2013, 7:06 PM

For decades, a so-called anti-propaganda law prevented the U.S. government's mammoth broadcasting arm from delivering programming to American audiences. But on July 2, that came silently to an end with the implementation of a new reform passed in January. The result: an unleashing of thousands of hours per week of government-funded radio and TV programs for domestic U.S. consumption in a reform initially criticized as a green light for U.S. domestic propaganda efforts. So what just happened?

Until this month, a vast ocean of U.S. programming produced by the Broadcasting Board of Governors such as Voice of America, Radio Free Europe/Radio Liberty, and the Middle East Broadcasting Networks could only be viewed or listened to at broadcast quality in foreign countries. The programming varies in tone and quality, but its breadth is vast: It's viewed in more than 100 countries in 61 languages. The topics covered include human rights abuses in Iran, self-immolation in Tibet, human trafficking across Asia, and on-the-ground reporting in Egypt and Iraq.

The restriction of these broadcasts was due to the Smith-Mundt Act, a long-standing piece of legislation that has been amended numerous times over the years, perhaps most consequentially by Arkansas Senator J. William Fulbright. In the 1970s, Fulbright was no friend of VOA and Radio Free Europe, and moved to restrict them from domestic distribution, saying they "should be given the opportunity to take their rightful place in the graveyard of Cold War relics."

Fulbright's amendment to Smith-Mundt was bolstered in 1985 by Nebraska Senator Edward Zorinsky, who argued that such "propaganda" should be kept out of America as to distinguish the U.S. "from the Soviet Union where domestic propaganda is a principal government activity."

Zorinsky and Fulbright sold their amendments on sensible rhetoric: American taxpayers shouldn't be funding propaganda for American audiences. So did Congress just tear down the American public's last defense against domestic propaganda?

BBG spokeswoman Lynne Weil insists BBG is not a propaganda outlet, and its flagship services such as VOA "present fair and accurate news."

"They don't shy away from stories that don't shed the best light on the United States," she told *The Cable*. She pointed to the charters of VOA and RFE: "Our journalists provide what many people cannot get locally: uncensored news, responsible discussion, and open debate."

A former U.S. government source with knowledge of the BBG says the organization is no *Pravda*, but it does advance U.S. interests in more subtle ways. In Somalia, for instance, VOA serves as counterprogramming to outlets peddling anti-American or jihadist sentiment. "Somalis have three options for news," the source said, "word of mouth, al-Shabab, or VOA Somalia."

This partially explains the push to allow BBG broadcasts on local radio stations in the United States. The agency wants to reach diaspora communities, such as St. Paul, Minnesota's significant Somali expat community. "Those people can get al-Shabab, they can get Russia Today, but they couldn't get access to their taxpayer-funded news sources like VOA Somalia," the source said. "It was silly."

Lynne added that the reform has a transparency benefit as well. "Now Americans will be able to know more about what they are paying for with their tax dollars — greater transparency is a win-win for all involved," she said. And so with that we have the Smith-Mundt Modernization Act of 2012, which passed as part of the 2013 National Defense Authorization Act, and went into effect this month.

But if anyone needed a reminder of the dangers of domestic propaganda efforts, the past 12 months provided ample reasons. Last year, two *USA Today*

journalists were ensnared in a propaganda campaign after reporting about millions of dollars in back taxes owed by the Pentagon's top propaganda contractor in Afghanistan. Eventually, one of the co-owners of the firm confessed to creating phony websites and Twitter accounts to smear the journalists anonymously. Additionally, just this month, the *Washington Post* exposed a counter-propaganda program by the Pentagon that recommended posting comments on a U.S. website run by a Somali expat with readers opposing al-Shabab. "Today, the military is more focused on manipulating news and commentary on the Internet, especially social media, by posting material and images without necessarily claiming ownership," reported the *Post*.

But for BBG officials, the references to Pentagon propaganda efforts are nauseating, particularly because the Smith-Mundt Act never had anything to do with regulating the Pentagon, a fact that was misunderstood in media reports in the run-up to the passage of new Smith-Mundt reforms in January.

One example included a report by the late *BuzzFeed* reporter Michael Hastings, who suggested that the Smith-Mundt Modernization Act would open the door to Pentagon propaganda of U.S. audiences. In fact, as amended in 1987, the act only covers portions of the State Department engaged in public diplomacy abroad (i.e. the public diplomacy section of the "R" bureau, and the Broadcasting Board of Governors.)

But the news circulated regardless, much to the displeasure of Rep. Mac Thornberry (R-TX), a sponsor of the Smith-Mundt Modernization Act of 2012. "To me, it's a fascinating case study in how one blogger was pretty sloppy, not understanding the issue and then it got picked up by *Politico's* Playbook, and you had one level of sloppiness on top of another," Thornberry told *The Cable* last May. "And once something sensational gets out there, it just spreads like wildfire."

That of course doesn't leave the BBG off the hook if its content smacks of agitprop. But now that its materials are allowed to be broadcast by local radio stations and TV networks, they won't be a complete mystery to Americans. "Previously, the legislation had the effect of clouding and hiding this stuff," the former U.S. official told *The Cable*. "Now we'll have a better sense: Gee some of this stuff is really good. Or gee some of this stuff is really bad. At least we'll know now."

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Exhibit 12



National Center for Health Statistics

Daily Updates of Totals by Week and State

Provisional Death Counts for Coronavirus Disease 2019 (COVID-19)

Contents

[Daily Updates of Totals by Week and State](#)

[Weekly Updates by Select Demographic and Geographic Characteristics](#)

[Excess Deaths Associated with COVID-19](#)

[Technical Notes](#)

Updated: July 15, 2020



Note: Provisional death counts are based on death certificate data received and coded by the National Center for Health Statistics as of July 15, 2020. Death counts are delayed and may differ from other published sources (see Technical Notes). Counts will be updated periodically. Additional information will be added to this site as available.

The provisional counts for coronavirus disease 2019 (COVID-19) deaths are based on a current flow of mortality data in the National Vital Statistics System. National provisional counts include deaths occurring within the 50 states and the District of Columbia that have been received and coded as of the date specified. It is important to note that it can take several weeks for death records to be submitted to National Center for Health Statistics (NCHS), processed, coded, and tabulated. Therefore, the data shown on this page may be incomplete, and will likely not include all deaths that occurred during a given time period, especially for the more recent time periods. Death counts for earlier weeks are continually revised and may increase or decrease as new and updated death certificate data are received from the states by NCHS. COVID-19 death counts shown here may differ from other published sources, as data currently are lagged by an average of 1–2 weeks.

The provisional data presented on this page include the weekly provisional count of deaths in the United States due to COVID-19, deaths from all causes and percent of expected deaths (i.e., number of deaths received over number of deaths expected based on data from previous years), pneumonia deaths (excluding pneumonia deaths involving influenza), pneumonia deaths involving COVID-19, influenza deaths, and deaths involving pneumonia, influenza, or COVID-19; (a) by week ending date and (b) by specific jurisdictions.

Table 1 has counts of death involving COVID-19 and select causes of death by the week ending date in which the death occurred. For deaths involving COVID-19 by week ending date at the state level, [Click here to download](#).

▼ Table 1. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by week ending date, United States. Week ending 2/1/2020 to 7/11/2020.*

Updated July 15, 2020

Week ending date in which the death occurred	All Deaths involving COVID-19 (U07.1) ¹	Deaths from All Causes	Percent of Expected Deaths ²	Deaths involving Pneumonia, with or without COVID-19, excluding Influenza deaths (J12.0–J18.9) ³	Deaths involving COVID-19 and Pneumonia, excluding Influenza (U07.1 and J12.0–J18.9) ³	All Deaths involving Influenza, with or without COVID-19 or Pneumonia (J09–J11), includes COVID-19 or Pneumonia ⁴	Deaths involving Pneumonia, Influenza, or COVID-19 (U07.1 or J09–J18.9) ⁵
Total Deaths	121,374	1,387,325	105	131,332	52,431	6,519	205,837
2/1/2020	0	58,327	98	3,774	0	478	4,252
2/8/2020	1	59,071	99	3,778	0	519	4,298
2/15/2020	0	58,321	99	3,799	0	554	4,353
2/22/2020	5	58,318	100	3,655	1	561	4,220
2/29/2020	5	58,508	102	3,775	3	640	4,417
3/7/2020	34	58,645	101	3,905	16	622	4,544
3/14/2020	52	57,679	101	3,898	27	611	4,533
3/21/2020	561	58,521	103	4,496	249	547	5,348
3/28/2020	3,128	62,493	112	6,118	1,413	440	8,223
4/4/2020	9,909	71,663	129	9,834	4,717	477	15,267
4/11/2020	16,014	78,342	142	11,893	7,175	471	20,863
4/18/2020	16,909	76,040	140	11,297	7,256	262	21,025
4/25/2020	15,225	72,937	136	10,252	6,532	143	18,992
5/2/2020	12,979	68,196	127	8,830	5,460	64	16,393
5/9/2020	10,963	65,457	123	7,682	4,634	46	14,048
5/16/2020	8,944	62,732	119	6,582	3,691	19	11,851
5/23/2020	6,947	59,400	113	5,689	2,894	22	9,760
5/30/2020	5,868	56,571	108	5,017	2,380	10	8,515
6/6/2020	4,646	54,904	104	4,577	2,008	11	7,226
6/13/2020	3,702	52,508	100	4,013	1,651	10	6,071
6/20/2020	2,892	49,536	95	3,566	1,232	5	5,231
6/27/2020	1,675	42,450	82	2,535	643	6	3,573
7/4/2020	643	31,214	60	1,579	310	0	1,912
7/11/2020	272	15,492	30	788	139	1	922

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period. Counts of deaths occurring before or after the reporting period are not included in the table. The United States population, based on 2018 postcensal estimates from the U.S. Census Bureau, is 327,167,434.

*Data during this period are incomplete because of the lag in time between when the death occurred and when the death certificate is completed, submitted to NCHS and processed for reporting purposes. This delay can range from 1 week to 8 weeks or more, depending on the jurisdiction and cause of death.

¹Deaths with confirmed or presumed COVID-19, coded to ICD-10 code U07.1

²Percent of expected deaths is the number of deaths for all causes for this week in 2020 compared to the average number across the same week in 2017–2019. Previous analyses of 2015–2016 provisional data completeness have found that completeness is lower in the first few weeks following the date of death (<25%), and then increases over time such that data are generally at least 75% complete within 8 weeks of when the death occurred (8).

³Counts of deaths involving pneumonia include pneumonia deaths that also involve COVID-19 and exclude pneumonia deaths involving influenza.

⁴Counts of deaths involving influenza include deaths with pneumonia or COVID-19 also listed as a cause of death.

⁵Deaths with confirmed or presumed COVID-19, pneumonia, or influenza, coded to ICD-10 codes U07.1 or J09–J18.9.

▼ Table 2. Deaths involving coronavirus disease 2019 (COVID-19), pneumonia, and influenza reported to NCHS by jurisdiction of occurrence, United States. Week ending 2/1/2020 to 7/11/2020.*

Updated July 15, 2020

Jurisdiction of Occurrence	All Deaths Involving COVID-19 (U07.1) ¹	Deaths from All Causes	Percent of Expected Deaths ²	Deaths Involving Pneumonia, with or without COVID-19, excluding Influenza deaths (J12.0–J18.9) ³	Deaths Involving COVID-19 and Pneumonia, excluding Influenza (J12.0–J18.9 and U07.1) ³	All Deaths Involving Influenza, with or without COVID-19 or Pneumonia (J09–J11) ⁴	Deaths Involving Pneumonia, Influenza, or COVID-19 (U07.1 or J09–J18.9) ⁵
United States ⁶	121,374	1,387,325	105	131,332	52,431	6,519	205,837
Alabama	1,048	24,343	100	1,642	314	95	2,468
Alaska	11	1,751	89	78	-	-	89
Arizona	1,628	30,865	110	2,570	861	113	3,450
Arkansas	280	14,484	98	982	111	75	1,226
California	5,894	128,045	102	11,799	3,275	576	14,993
Colorado	1,601	19,705	108	1,840	831	95	2,700
Connecticut	3,842	14,653	100	1,539	867	72	4,583
Delaware	505	4,469	105	387	193	16	715
District of Columbia	594	3,336	119	767	585	-	785
Florida	3,246	99,813	103	7,614	1,673	308	9,486
Georgia	2,269	39,367	101	2,981	1,023	110	4,336
Hawaii	17	5,160	95	307	-	20	338
Idaho	94	6,255	95	302	26	25	395
Illinois	6,366	56,614	116	6,372	3,199	176	9,712
Indiana	2,552	31,938	104	3,104	1,076	131	4,707
Iowa	727	13,788	99	996	213	84	1,594
Kansas	273	11,935	98	786	121	89	1,027
Kentucky	573	20,748	93	1,905	287	98	2,288

Jurisdiction of Occurrence	All Deaths Involving COVID-19 (U07.1) ¹	Deaths from All Causes	Percent of Expected Deaths ²	Deaths Involving Pneumonia, with or without COVID-19, excluding Influenza deaths (J12.0-J18.9) ³	Deaths Involving COVID-19 and Pneumonia, excluding Influenza (J12.0-J18.9 and U07.1) ³	All Deaths Involving Influenza, with or without COVID-19 or Pneumonia (J09-J11) ⁴	Deaths Involving Pneumonia, Influenza, or COVID-19 (U07.1 or J09-J18.9) ⁵
Louisiana	2,916	22,928	109	2,286	1,377	71	3,891
Maine	112	6,725	100	475	26	31	592
Maryland	3,385	26,732	116	2,871	1,270	126	5,096
Massachusetts	7,588	34,252	124	4,775	2,756	161	9,760
Michigan	5,503	50,305	112	5,344	2,704	240	8,378
Minnesota	1,379	21,191	104	1,617	391	121	2,725
Mississippi	1,049	15,657	107	1,566	494	52	2,173
Missouri	941	28,761	96	1,796	316	176	2,597
Montana	20	4,449	94	226	-	34	276
Nebraska	257	7,525	95	570	95	28	760
Nevada	477	12,033	100	1,063	350	41	1,231
New Hampshire	360	5,987	106	408	98	30	699
New Jersey	13,559	50,056	146	9,090	6,612	121	16,144
New Mexico	462	8,514	99	664	191	29	964
New York ⁷	11,114	58,258	126	9,278	5,424	208	15,158
New York City	20,365	50,869	204	10,401	7,852	959	23,042
North Carolina	1,023	34,756	79	2,459	383	226	3,323
North Dakota	79	2,952	90	243	25	19	316
Ohio	2,462	55,307	97	3,630	1,031	258	5,318
Oklahoma	379	16,921	92	1,473	147	107	1,806
Oregon	211	15,976	94	782	73	64	983
Pennsylvania	6,953	62,619	99	5,483	2,535	205	10,102
Rhode Island	897	5,172	106	570	348	25	1,144
South Carolina	743	23,854	105	1,526	288	99	2,079
South Dakota	98	3,530	93	275	42	26	357
Tennessee	545	34,126	99	2,464	207	128	2,930
Texas	2,701	94,005	101	7,230	1,186	341	9,082
Utah	172	8,776	100	493	62	40	643
Vermont	57	2,727	102	151	14	16	210

Jurisdiction of Occurrence	All Deaths involving COVID-19 (U07.1) ¹	Deaths from All Causes	Percent of Expected Deaths ²	Deaths involving Pneumonia, with or without COVID-19, excluding Influenza deaths (J12.0–J18.9) ³	Deaths involving COVID-19 and Pneumonia, excluding Influenza (J12.0–J18.9 and U07.1) ³	All Deaths involving Influenza, with or without COVID-19 or Pneumonia (J09–J11) ⁴	Deaths involving Pneumonia, Influenza, or COVID-19 (U07.1 or J09–J18.9) ⁵
Virginia	1,961	33,001	104	2,069	665	111	3,474
Washington	1,189	26,525	100	2,047	629	111	2,713
West Virginia	99	8,452	81	620	32	58	745
Wisconsin	780	25,044	103	1,287	130	150	2,085
Wyoming	18	2,071	103	129	-	-	149
Puerto Rico	145	11,733	58	1,491	76	61	1,620

NOTE: Number of deaths reported in this table are the total number of deaths received and coded as of the date of analysis and do not represent all deaths that occurred in that period. Counts of deaths occurring before or after the reporting period are not included in the table.

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¹Deaths with confirmed or presumed COVID-19, coded to ICD-10 code U07.1.

²Percent of expected deaths is the number of deaths for all causes for this week in 2020 compared to the average number across the same week in 2017–2019.

³Counts of deaths involving pneumonia include pneumonia deaths that also involve COVID-19 and exclude pneumonia deaths involving influenza.

⁴Counts of deaths involving influenza include deaths with pneumonia or COVID-19 also listed as a cause of death.

⁵Deaths with confirmed or presumed COVID-19, pneumonia, or influenza, coded to ICD-10 codes U07.1 or J09–J18.9.

⁶United States death count includes the 50 states, plus the District of Columbia and New York City.

⁷Excludes New York City.

Understanding the Numbers: Provisional Death Counts and COVID-19

Provisional death counts deliver the most complete and accurate picture of lives lost to COVID-19. They are based on death certificates, which are the most reliable source of data and contain information not available anywhere else, including comorbid conditions, race and ethnicity, and place of death.

How it Works

The National Center for Health Statistics (NCHS) uses incoming data from death certificates to produce provisional COVID-19 death counts. These include deaths occurring within the 50 states and the District of Columbia.

NCHS also provides summaries that examine deaths in specific categories and in greater geographic detail, such as deaths by county and by race and Hispanic origin.

COVID-19 deaths are identified using a new ICD-10 code. When COVID-19 is reported as a cause of death – or when it is listed as a “probable” or “presumed” cause — the death is coded as U07.1. This can include cases with or without laboratory confirmation.

Why These Numbers are Different

Provisional death counts may not match counts from other sources, such as media reports or numbers from county health departments. Counts by NCHS often track 1–2 weeks behind other data.

- **Death certificates take time to be completed.** There are many steps to filling out and submitting a death certificate. Waiting for test results can create additional delays.
- **States report at different rates.** Currently, 63% of all U.S. deaths are reported within 10 days of the date of death, but there is significant variation between states.
- **It takes extra time to code COVID-19 deaths.** While 80% of deaths are electronically processed and coded by NCHS within minutes, most deaths from COVID-19 must be coded by a person, which takes an average of 7 days.
- **Other reporting systems use different definitions or methods for counting deaths.**

Things to know about the data

Provisional counts are not final and are subject to change. Counts from previous weeks are continually revised as more records are received and processed.

Provisional data are not yet complete. Counts will not include all deaths that occurred during a given time period, especially for more recent periods. However, we can estimate how complete our numbers are by looking at the average number of deaths reported in previous years.

Death counts should not be compared across states. Some states report deaths on a daily basis, while other states report deaths weekly or monthly. State vital record reporting may also be affected or delayed by COVID-19 related response activities.

For more detailed technical information, visit the Provisional Death Counts for Coronavirus Disease 2019 (COVID-19) Technical Notes page.

Page last reviewed: July 15, 2020

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,

Plaintiffs,

20-cv-651 (GLS/DJS)

v.

ANDREW M. CUOMO et al.,

Defendants.

AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO
ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS'
DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE
AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE

Exhibit 13

Opinion by Michael Hynes and William Doyle

🕒 Updated 12:16 PM ET, Mon May 11, 2020

Bill Gates predicts when we'll get a coronavirus vaccine 02:04

Editor's Note: Michael Hynes is a New York State district school superintendent, a former classroom teacher and principal and author of "Staying Grounded;" and William Doyle is a New York City public school parent and co-author of "Let the Children Play." The opinions expressed in this commentary are their own. View more opinions on CNN.

(CNN) — Governor Andrew Cuomo has announced what at first looks to be a terrible idea -- the Bill & Melinda Gates Foundation has been asked to help "reimagine" our state's school system in the wake of the coronavirus pandemic.

The Gates Foundation has been a driving force behind nearly 20 years of consistently failed federal and state attempts at education reform, including the widely reviled "Common Core" state standards. In that time, little-to-no system improvement has occurred, despite the squandering of vast sums of money by the Gates Foundation and by taxpayers. In a blog post noting the flaws of Common Core and announcing plans to re-focus their funding, Gates announced, "As we have reflected on our work and spoken with educators over the last few years, we have identified a few key insights that will shape our work and investments going forward."

The Gates Foundation now has a historic chance to redeem and distinguish itself as a world leader in education as it has in the field of public health. In fact, we believe that the educators, parents and children of New York should welcome the Gates Foundation to New York with open arms and marching brass bands -- but with three ironclad conditions.

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William Doyle



Michael Hynes

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First, in its New York work, the Foundation should abandon its core assumption that standardized test data should be the basis of childhood education, and instead commit to placing the health, happiness and the well-being of every child at the center of learning in the post-pandemic era.

Second, a representative body of New York State educators, students and parents would review, approve or veto any recommendations the Gates Foundation has to offer.

And third, to "reimagine" education once schools are safe to re-open, the Gates Foundation would seek inspiration and advice not from its own history of failed policies or from consultants or technology salespeople, but from the world's best subject matter experts: New York teachers, parents, pediatricians and children themselves. As Melinda Gates notes in the Gates Foundation's 2020 annual letter, "We certainly understand why many people are skeptical about the idea of billionaire philanthropists designing classroom innovations or setting education policy. Frankly, we are, too. Bill and I have always been clear that our role isn't to generate ideas ourselves; it's to support innovation driven by people who have spent their careers working in education: teachers, administrators, researchers, and community leaders."

Here's what we believe many of them will say.

Schools should follow pediatric medical guidelines to reopen and operate schools

In its May 5 "Critical Update" on "COVID-19 Planning Considerations: Return to In-person Education in Schools," the American Academy of Pediatrics (AAP), representing the nation's 67,000 children's doctors, writes, "Plans to make up for lost academic progress due to school closures and distress associated with the pandemic should be balanced by a recognition of the likely continued distress of educators and students that will persist when schools re-open. If the academic expectations are unrealistic, school will likely become a source of further distress for students (and educators) at a time when they need additional support."

The AAP also considers it "critical to maintain a balanced curriculum with continued physical education and other learning experiences rather than an exclusive emphasis on core subject areas." In previous clinical reports, the AAP has stressed the absolutely critical roles of physical activity, play, the arts and recess as

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especially high poverty schools.

The Gates Foundation can help strategize how New York State schools can safely deliver much more high-quality physical education, recess, sports and periods of play-based, non-digital teaching and learning. As the AAP has stated, "the lifelong success of children is based on their ability to be creative and apply the lessons learned from playing."

Related Article: To help schools open safely this fall, governors must act now

Technology should be put in its proper place

In the words of advocacy groups New York State Allies for Public Education, Class Size Matters and Parent Coalition for Student Privacy in their May 5 letter to Governor Cuomo criticizing the decision to engage the Gates Foundation, "Since the schools were shut down in mid-March, our understanding of the profound deficiencies of screen-based instruction has only grown. The use of education tech may have its place, but only as an ancillary to in-person learning, not as its replacement." As the American Academy of Pediatrics puts it, distance learning "is not generally believed to replicate the in-person learning experience." As parents who have grappled with this reality in our own families, we couldn't agree more.

Digital devices are of critical use during school shutdowns, but as soon as schools can safely reopen, screens should be relegated to their proper role as classroom tools among many others, not as the Holy Grail of education. The last thing our children need is indiscriminately more screens and screen time in school.

Student and teacher well-being is critical to learning



According to the recent "Framework for opening schools" report jointly issued by UNICEF, the World Bank, UNESCO and the World Food Programme, reducing class sizes, increasing mental health services and focusing on the well-being of students and educators should be all part of the reopening process. The report also mentions the option of moving classes outdoors, which, when possible, will be a powerful boost to everyone's health, healing and happiness. And as the pediatrician's report states, "Schools are encouraged to adopt an approach of universal services for mental health support for all students."

Related Article: Internet restrictions during the Covid-19 pandemic can be fatal



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to all on equal terms'

These are the words of the United States Supreme Court in its historic 1954 *Brown v. Board of Education* decision, and we have failed to live up to them. Today, for example, New York City schools are among the most segregated in the nation. Many of our schools throughout the state are unfairly and inadequately funded, and cursed by generations of neglect, segregation and political mismanagement, the results of which are incorrectly blamed on our teachers. We should fund and support schools fairly and fully, and work to integrate our schools to the maximum extent possible, which research strongly indicates helps all children.

Teachers should be respected and supported as elite professionals

We are blessed in New York State with some of the most brilliant, committed and heroic educators and school support staff in the world, some of whom have literally laid down their lives during the pandemic to serve our children. But for years they have been shackled by bureaucracy, overwork, inept political interference and micromanagement. We should free educators to do their best work and shower them with respect and support. We should take the job of assessing student progress away from for-profit standardized testing companies and place it where it belongs -- in the hands of classroom teachers who know our students best. As a bonus, this will free up huge amounts of money and energy we can apply to urgent school priorities.

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If and when the Gates Foundation is ready to help New York State's schools on these terms, we should roll out the red carpet. If not, we should say thanks but no thanks.

Sound tough?

Well, as Governor Cuomo has said, "let New York lead the way, because we are New York tough," which he defines as, "being smart, and being disciplined, and being unified, and being loving."

Now is the time for us to make our love for children and teachers the guiding light of education. With or without the Gates Foundation, New York State should lead the way.

Note: An earlier version named Leonie Haimson as the writer of a letter to Gov. Andrew Cuomo. Haimson is the executive director of Class Size Matters, one of the three groups that signed the letter.



US

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Exhibit 14

Bill Gates: From Entrepreneur to Supervillain

A [aier.org/article/bill-gates-from-entrepreneur-to-supervillain/](https://www.printfriendly.com/p/g/aAPRgH)

July 8, 2020

Barry Brownstein

– July 8, 2020



Bill Gates is regretting things left undone. Gates is sorry he hasn't done "more to call attention to the danger" of a pandemic." In an interview, Gates said, "I feel terrible. The whole point of talking about it was that we could take action and minimize the damage."

For his critics, rather than minimizing the damage, Gates has done too much to set a course of action having disastrous unanticipated consequences. Gates, the billionaire philanthropist, has become a supervillain.

Since April, over 500,000 people have signed a petition at [whitehouse.gov](https://www.whitehouse.gov/petitions) calling for an investigation of the Gates Foundation for "medical malpractice and crimes against humanity."

Admirers of Gates blame "anti-vaccine activists and conspiracy-minded posters" for spreading "misinformation" damaging to Bill Gates's reputation. In May, one essay claimed to debunk the assertion that Gates

plans to make South Africans early test subjects for a COVID-19 vaccine. A month later, the “myth” was revealed to be true.

Gates has taken up the cause of global warming too. He is funding a mad geoengineering scheme at Harvard to partially block sunlight. Imagine setting in motion a “solution” that has the potential to destroy all life on earth. Gates’s hubris seems boundless.

You don’t need a conspiracy theory to explain Bill Gates’s transformation from entrepreneur to supervillain. Gates has always been a ruthless zealot. Yet when he was at Microsoft, his worst character flaws were held in check by the demands of running a competitive business and the necessity of meeting the needs of consumers. As a philanthropist, he is not disciplined by forces of the marketplace. Empowered by government coercion, there is nothing to keep him or us from his worst instincts.

Good Intentions Don’t Matter

Gates is ready to give away most of his vast fortune, in his words, to “coordinated global action” to prevent disease. You might give Gates high marks for his good intentions.

History is full of reasons why we should not trust those with good intentions. A common trope in movies and comics is the supervillain who is ready to sacrifice the well-being of many people to further a warped pursuit they see as noble.

In his book *Capitalism and Freedom*, Milton Friedman explained why “concentrated power is not rendered harmless by the good intentions of those who create it.” Friedman pointed to internal threats to freedom that are far more difficult to see than external threats:

“It is the internal threat coming from men of good intentions and good will who wish to reform us. Impatient with the slowness of persuasion and example to achieve the great social changes they envision, they are anxious to use the power of the state to achieve their ends and confident of their own ability to do so.”

When Gates the entrepreneur was wrong, he was held accountable by consumers and competitive forces. When Gates the philanthropist is wrong, politicians and academics will evaluate him by different criteria.

Gates at Microsoft

When Gates co-founded Microsoft with the late Paul Allen, he didn't build Microsoft on good intentions. Paul Allen described "ruthlessness" as a character flaw of Gates. Gates routinely browbeat and denigrated those he disagreed with. Allen saw himself as the real innovator but valued Gates as a "sanity check" on his ideas. Allen and Gates needed each other to build Microsoft.

Others confirm Allen's view of Gates. Ed Roberts has been called the father of the personal computer. James Wallace and Jim Erickson interviewed Roberts for their book *Hard Drive: Bill Gates and the Making of the Microsoft Empire*. Roberts recalls Gates being unyielding: "We got so we didn't even invite him to meetings where we were trying to come up with a new software approach or something like that because he was impossible to deal with."

Roberts believed, "Paul Allen was much more creative than Bill. Bill spent his whole time trying to be argumentative and not trying to come up with solutions. Paul was exactly the opposite."

A *Financial Review* essay describes Allen "as an intuitive thinker who had a sixth sense about new products" while Gates "was the driven, clear-headed partner who turned Allen's sometimes random ideas into successful products."

Synergies between Gates's and Allen's differing leadership styles made for success. "Gates was explosive and confrontational while Allen...was thoughtful and empathetic." Fights were typical: "The two argued frequently, often screaming at each other in front of employees. But the fights, colleagues said, frequently resulted in good business decisions."

Why did the fights result in good decisions? On some level, Gates and Allen were willing to be led by consumer needs.

In his seminal leadership book *Good to Great*, Jim Collins found that the most successful leaders blended extraordinary "personal humility and professional will." Gates lacked humility and may have been a miserable failure without Allen's partnership.

The late Harold Geneen was CEO of ITT. In his instructive book, *Ego is the Enemy*, Ryan Holiday quotes Geneen who compared egoism to alcoholism: "The egotist does not stumble about, knocking things off his desk. He does not stammer or drool. No, instead, he becomes more and more arrogant, and some people, not knowing what is underneath such an attitude, mistake his arrogance for a sense of power and self confidence."

A leader with an unbridled ego is a danger, Geneen explained:

“Whether in middle management or top management, unbridled personal egotism blinds a man to the realities around him; more and more he comes to live in a world of his own imagination; and because he sincerely believes he can do no wrong, he becomes a menace to the men and women who have to work under his direction.”

Holiday adds, “If ego is the voice that tells us we’re better than we really are, we can say ego inhibits true success by preventing a direct and honest connection to the world around us.”

Market forces reward businesses that maintain an ongoing “direct and honest connection” to the needs of consumers. Ludwig von Mises explained why consumers are the real “bosses:”

“[Consumers], by their buying and by their abstention from buying, decide who should own the capital and run the plants. They determine what should be produced and in what quantity and quality. Their attitudes result either in profit or in loss for the enterpriser. They make poor men rich and rich men poor.

The consumers are merciless. They never buy in order to benefit a less efficient producer and to protect him against the consequences of his failure to manage better. They want to be served as well as possible. And the working of the capitalist system forces the entrepreneur to obey the orders issued by the consumers.”

Gates the Philanthropist

Neil Ferguson of the Imperial College London had inordinate influence “advising national governments on pathogen outbreaks.” Ferguson listens to Gates, as his center receives “tens of millions of dollars in annual funding from the Bill & Melinda Gates Foundation.”

The model Ferguson used to advise draconian lockdowns in response to COVID-19 has been thoroughly discredited both on theoretical and empirical grounds. To err is to be human, but this was not Ferguson’s first disastrous prediction. As AIER president Edward Peter Stringham points out, “Ferguson rose to fame in 2005 when he predicted that up to 200 million people could be killed from the bird flu.” The actual number of deaths was 50.

Gates, the businessman, would have long ago cut off Ferguson. No successful entrepreneur insists on partnering with a dismal failure. Yet for Gates, Ferguson's performance as an epidemiologist didn't seem to matter. What matters to Gates is that Ferguson's view of the world is aligned with his own. Both support quarantining healthy people without regard to the human and economic cost.

Bill Gates has enjoyed a partnership with Dr. Anthony Fauci. Of course, it is natural to partner with those who share your worldview. Problems arise when a partnership leads to the use of the coercive arm of government to implement what you believe is your superior vision.

In his April blog post on COVID-19 vaccine development, Gate explains how a new rushed to market COVID-19 vaccine is likely to be a RNA vaccine. With an RNA vaccine, "rather than injecting a pathogen's antigen into your body, you instead give the body the genetic code needed to produce that antigen itself." Gates admits the process is risky. "It's a bit like building your computer system and your first piece of software at the same time."

Rushed vaccines have unique safety concerns, and RNA vaccines deserve heightened scrutiny. Gates admits the vaccine may not be both safe and effective:

"If we were designing the perfect vaccine, we'd want it to be completely safe and 100 percent effective. It should be a single dose that gives you lifelong protection, and it should be easy to store and transport. I hope the COVID-19 vaccine has all of those qualities, but given the timeline we're on, it may not."

Heightening potential risks, vaccines are shielded from liability when they turn out to be unsafe. Nobody is held accountable for the consequences of taking shortcuts in the development process.

A COVID-19 vaccine has not even arrived and already some doctors are advocating for compulsory vaccination. Gates himself says, "We need to manufacture and distribute at least 7 billion doses of the vaccine." With polls showing only 50% of the population planning on taking a COVID-19 vaccine, presumably, Gates and vaccine manufactures are banking on the government making the vaccine mandatory.

Gates is now actively stoking the fires of fear. He warns that this fall "COVID-19 will be back in big numbers, if we don't restrain our behavior more than it looks like we are right at the moment." He complained that

we're not tough enough "on contact tracing or enforcing quarantine." In short, obey Gates and his favored "experts" or doom will befall us all.

Gates insists normalcy cannot return until "we have an almost perfect drug to treat COVID-19, or when almost every person on the planet has been vaccinated against coronavirus." Yet, death rates from the COVID-19 virus are falling. Without a deadly virus it is hard to sell a potentially dangerous vaccine.

Nobel laureate Michael Levitt repeatedly warned that the doomsday exponential models, such as Ferguson's, were wrong. Instead of examining Levitt's analysis, Levitt received only "abuse" from other scientists. You need to "stop talking like that," he was told. Another Nobel laureate, Saul Perlmutter, observed the "tendency to circle the wagons and hide all the conversations that need to happen."

Entrepreneurs don't hide conversations that need to happen; it's bad for business. Those with a one-track agenda seek to maintain control by suppressing conversation of divergent viewpoints.

I will leave it to others to parse Gates' philanthropic motives. His good intentions don't matter. What matters is that Gates has access to world leaders who have coercive power. Gates, undisciplined by consumers or business partners, will make errors. Given his character flaws, Gates is likely to ignore and not learn from his mistakes.

Supervillains coerce and harm. Successful entrepreneurs serve and enrich humanity. Gates should return to his entrepreneurial roots.

Barry Brownstein

Barry Brownstein is professor emeritus of economics and leadership at the University of Baltimore. He is senior contributor at Intellectual Takeout and the author of *The Inner-Work of Leadership*.

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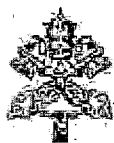
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Exhibit 15



PONTIFICIA ACADEMIA
PRO VITA

Il Presidente
Prot.n.P/3431

Mrs Debra L.Vinnedge Vatican City, June 9 2005
Executive Director, Children of God for Life
943 Deville Drive East
Largo, Florida
33771
Stati Uniti

Dear Mrs Debra L.Vinnedge,

On June 4, 2003, you wrote to His Eminence Cardinal Joseph Ratzinger, with a copy of this letter forwarded to me, asking to the Sacred Congregation of the Doctrine of Faith a clarification about the liceity of vaccinating children with vaccines prepared using cell lines derived from aborted human fetuses. Your question regarded in particular the right of the parents of these children to oppose such a vaccination when made at school, mandated by law. As there were no formal guidelines by the magisterium concerning that topic, you said that catholic parents were often challenged by State Courts, Health Officials and School Administrators when they filled religious exemptions for their children to this type of vaccination.

This Pontifical Academy for Life, carrying out the commission entrusted to us by the Congregation for the Doctrine of Faith, in answer to your request, has proceeded to a careful examination of the question of these "tainted" vaccines, and has produced as a result a study (in Italian) that has been realized with the help of a group of experts. This study has been approved as such by the Congregation and we send you, there enclosed, an English translation of a synthesis of this study. This synthesis can be brought to the knowledge of the interested officials and organisms.

A documented paper on the topic will be published in the journal "*Medicina e Morale*", edited by the *Centra di Bioetica della Universita Cattolica* in Rome.

The study, its synthesis, and the translation of this material took some time. We apologize for the delay.

With my best regards,

Sincerely yours,

+ 

+E.Sgreccia

00193 Roma - Via della Conciliazione, 1 - Tel. 06 698.82423 - 06 698.81693 - Fax 06 698.82014

**MORAL REFLECTIONS
ON VACCINES PREPARED FROM
CELLS
DERIVED FROM ABORTED HUMAN FOETUSES**

The matter in question regards the lawfulness of production, distribution and use of certain vaccines whose production is connected with acts of procured abortion. It concerns vaccines containing live viruses which have been prepared from human cell lines of foetal origin, using tissues from aborted human foetuses as a source of such cells. The best known, and perhaps the most important due to its vast distribution and its use on an almost universal level, is the vaccine against Rubella (German measles).

Rubella and its vaccine

Rubella (German measles)¹ is a viral illness caused by a Togavirus of the genus Rubivirus and is characterized by a maculopapular rash. It consists of an infection which is common in infancy and has no clinical manifestations in one case out of two, is self-limiting and usually benign. Nonetheless, the German measles virus is one of the most pathological infective agents for the embryo and foetus. When a woman catches the infection during pregnancy, especially during the first trimester, the risk of foetal infection is very high (approximately 95%). The virus replicates itself in the placenta and infects the foetus, causing the constellation of abnormalities denoted by the name of Congenital Rubella Syndrome. For example, the severe epidemic of German measles which affected a huge part of the United States in 1964 thus caused 20,000 cases of congenital rubella², resulting in 11,250 abortions (spontaneous or surgical), 2,100 neonatal deaths, 11,600 cases of deafness, 3,580 cases of blindness, 1,800 cases of mental retardation. It was this epidemic that pushed for the development and introduction on the market of an effective vaccine against rubella, thus permitting an effective prophylaxis against this infection.

The severity of congenital rubella and the handicaps which it causes justify systematic vaccination against such a sickness. It is very difficult, perhaps even impossible, to avoid the infection of a pregnant woman, even if the rubella infection of a person in contact with this woman is diagnosed from the first day of the eruption of the rash. Therefore, one tries to prevent transmission by suppressing the reservoir of infection among children who have not been vaccinated, by means of early immunization of all children (universal vaccination). Universal vaccination has resulted in a considerable fall in the incidence of congenital rubella, with a general incidence reduced to less than 5 cases per 100,000 livebirths. Nevertheless, this progress remains fragile. In the United States, for example, after an overwhelming reduction in the number of cases of congenital rubella to only a few cases annually, i.e. less than 0.1 per 100,000 live births, a new epidemic wave came on in 1991, with an incidence that rose to 0.8/100,000. Such waves of resurgence of German measles were also seen in 1997 and in the year 2000. These periodic episodes of resurgence make it evident that there is a persistent circulation of the virus among young adults, which is the consequence of insufficient vaccination coverage. The latter situation allows a significant proportion of vulnerable subjects to persist, who are a source of periodic epidemics which put women in the fertile age group who have not been immunized at risk. Therefore, the reduction to the point of eliminating congenital rubella is considered a priority in public health care.

Vaccines currently produced using human cell lines that come from aborted foetuses

To date, there are two human diploid cell lines which were originally prepared from tissues of aborted foetuses (in 1964 and 1970) and are used for the preparation of vaccines based on live attenuated virus: the first one is the WI-38 line (Wistar Institute 38), with human diploid lung fibroblasts, coming from a female foetus that was aborted because the family felt they had too many children (G. Sven et al., 1969). It was prepared and developed by Leonard Hayflick in 1964 (L. Hayflick, 1965; G. Sven et al., 1969)³ and bears the ATCC number CCL-75. WI-38 has been used for the preparation of the historical vaccine RA 27/3 against rubella

(S.A. Plotkin et al, 1965)⁴. The second human cell line is MRC-5 (Medical Research Council 5) (human, lung, embryonic) (ATCC number CCL-171), with human lung fibroblasts coming from a 14 week male foetus aborted for "psychiatric reasons" from a 27 year old woman in the UK. MRC-5 was prepared and developed by J.P. Jacobs in 1966 (J.P. Jacobs et al, 1970)⁵. Other human cell lines have been developed for pharmaceutical needs, but are not involved in the vaccines actually available⁶.

The vaccines that are incriminated today as using human cell lines from aborted fetuses, WI-38 and MRC-5, are the following:⁷

A) Live vaccines against rubella⁸:

- the monovalent vaccines against rubella Meruvax® (Merck) (U.S.), Rudivax® (Sanofi Pasteur, Fr.), and Ervevax® (RA 27/3) (GlaxoSmithKline, Belgium);
- the combined vaccine MR against rubella and measles, commercialized with the name of M-R-VAX® (Merck, US) and Rudi-Rouvax® (AVP, France);
- the combined vaccine against rubella and mumps marketed under the name of Biavax® (Merck, U.S.),
- the combined vaccine MMR (measles, mumps, rubella) against rubella, mumps and measles, marketed under the name of M-M-R® II (Merck, US), R.O.R.®, Trimovax® (Sanofi Pasteur, Fr.), and Priorix® (GlaxoSmithKline UK).

B) Other vaccines, also prepared using human cell lines from aborted fetuses:

- two vaccines against hepatitis A, one produced by Merck (VAQTA), the other one produced by GlaxoSmithKline (HAVRIX), both of them being prepared using MRC-5;
- one vaccine against chicken pox, Varivax®, produced by Merck using WI-38 and MRC-5;
- one vaccine against poliomyelitis, the inactivated polio virus vaccine Poliovax® (Aventis-Pasteur, Fr.) using MRC-5;
- one vaccine against rabies, Imovax®, produced by Aventis Pasteur, harvested from infected human diploid cells, MRC-5 strain;
- one vaccine against smallpox, AC AM 1000, prepared by Acambis using MRC-5, still on trial.

The position of the ethical problem related to these vaccines

From the point of view of prevention of viral diseases such as German measles, mumps, measles, chicken pox and hepatitis A, it is clear that the making of effective vaccines against diseases such as these, as well as their use in the fight against these infections, up to the point of eradication, by means of an obligatory vaccination of all the population at risk, undoubtedly represents a "milestone" in the secular fight of man against infective and contagious diseases.

However, as the same vaccines are prepared from viruses taken from the tissues of fetuses that had been infected and voluntarily aborted, and the viruses were subsequently attenuated and cultivated from human cell lines which come likewise from procured abortions, they do not cease to pose ethical problems. The need to articulate a moral reflection on the matter in question arises mainly from the connection which exists between the vaccines mentioned above and the procured abortions from which biological material necessary for their preparation was obtained.

If someone rejects every form of voluntary abortion of human fetuses, would such a person not contradict himself/herself by allowing the use of these vaccines of live attenuated viruses on their children? Would it not be a matter of true (and illicit) cooperation in evil, even though this evil was carried out forty years ago?

Before proceeding to consider this specific case, we need to recall briefly the principles assumed in classical moral doctrine with regard to the problem of *cooperation in evil*⁹, a problem which arises every time that a moral agent perceives the existence of a link between his own acts and a morally evil action carried out by others.

The principle of *licit cooperation in evil*

The first fundamental distinction to be made is that between *formal* and *material cooperation*. *Formal cooperation* is carried out when the moral agent cooperates with the immoral action of another person, sharing in the latter's evil intention. On the other hand, when a moral agent cooperates with the immoral action of another person, without sharing his/her evil intention, it is a case of *material cooperation*.

Material cooperation can be further divided into categories of *immediate* (direct) and *mediate* (indirect), depending on whether the cooperation is in the execution of the sinful action *per se*, or whether the agent acts by fulfilling the conditions - either by providing instruments or products - which make it possible to commit the immoral act. Furthermore, forms of *proximate cooperation* and *remote cooperation* can be distinguished, in relation to the "distance" (be it in terms of *temporal* space or *material* connection) between the act of cooperation and the sinful act committed by someone else. *Immediate material cooperation* is always *proximate*, while *mediate material cooperation* can be either *proximate* or *remote*.

Formal cooperation is always morally illicit because it represents a form of direct and intentional participation in the sinful action of another person.¹⁰ *Material cooperation* can sometimes be illicit (depending on the conditions of the "double effect" or "indirect voluntary" action), but when *immediate material cooperation* concerns grave attacks on human life, it is always to be considered illicit, given the precious nature of the value in question¹¹.

A further distinction made in classical morality is that between *active* (or positive) cooperation in evil and *passive* (or negative) cooperation in evil, the former referring to the performance of an act of cooperation in a sinful action that is carried out by another person, while the latter refers to the omission of an act of denunciation or impediment of a sinful action carried out by another person, inasmuch as there was a moral duty to do that which was omitted¹².

Passive cooperation can also be formal or material, immediate or mediate, proximate or remote. Obviously, every type of formal passive cooperation is to be considered illicit, but even passive material cooperation should generally be avoided, although it is admitted (by many authors) that there is not a rigorous obligation to avoid it in a case in which it would be greatly difficult to do so.

Application to the use of vaccines prepared from cells coming from embryos or fetuses aborted voluntarily

In the specific case under examination, there are three categories of people who are involved in the cooperation in evil, evil which is obviously represented by the action of a voluntary abortion performed by others: a) those who prepare the vaccines using human cell lines coming from voluntary abortions; b) those who participate in the mass marketing of such vaccines; c) those who need to use them for health reasons.

Firstly, one must consider morally illicit every form of *formal* cooperation (sharing the evil intention) in the action of those who have performed a voluntary abortion, which in turn has allowed the retrieval of foetal tissues, required for the preparation of vaccines. Therefore, whoever - regardless of the category to which he belongs — cooperates in some way, sharing its intention, to the performance of a voluntary abortion with the aim of producing the above-mentioned vaccines, participates, in actuality, in the same moral evil as the person who has performed that abortion. Such participation would also take place in the case where

someone, sharing the intention of the abortion, refrains from denouncing or criticizing this illicit action, although having the moral duty to do so (*passive formal cooperation*).

In a case where there is no such formal sharing of the immoral intention of the person who has performed the abortion, any form of cooperation would be *material*, with the following specifications.

As regards the preparation, distribution and marketing of vaccines produced as a result of the use of biological material whose origin is connected with cells coming from fetuses voluntarily aborted, such a process is stated, as a matter of principle, morally illicit, because it could contribute in encouraging the performance of other voluntary abortions, with the purpose of the production of such vaccines. Nevertheless, it should be recognized that, within the chain of production-distribution-marketing, the various cooperating agents can have different moral responsibilities.

However, there is another aspect to be considered, and that is the form of *passive material cooperation* which would be carried out by the producers of these vaccines, if they do not denounce and reject publicly the original immoral act (the voluntary abortion), and if they do not dedicate themselves together to research and promote alternative ways, exempt from moral evil, for the production of vaccines for the same infections. Such *passive material cooperation*, if it should occur, is equally illicit.

As regards those who need to use such vaccines for reasons of health, it must be emphasized that, apart from every form of *formal cooperation*, in general, doctors or parents who resort to the use of these vaccines for their children, in spite of knowing their origin (voluntary abortion), carry out a form of *very remote mediate material cooperation*, and thus very mild, in the performance of the original act of abortion, and a *mediate material cooperation*, with regard to the marketing of cells coming from abortions, and *immediate*, with regard to the marketing of vaccines produced with such cells. The cooperation is therefore more intense on the part of the authorities and national health systems that accept the use of the vaccines.

However, in this situation, the aspect of *passive cooperation* is that which stands out most. It is up to the faithful and citizens of upright conscience (fathers of families, doctors, etc.) to oppose, even by making an objection of conscience, the ever more widespread attacks against life and the "culture of death" which underlies them. From this point of view, the use of vaccines whose production is connected with procured abortion constitutes at least a mediate remote passive material cooperation to the abortion, and an immediate passive material cooperation with regard to their marketing. Furthermore, on a cultural level, the use of such vaccines contributes in the creation of a generalized social consensus to the operation of the pharmaceutical industries which produce them in an immoral way.

Therefore, doctors and fathers of families have a duty to take recourse to alternative vaccines¹³ (if they exist), putting pressure on the political authorities and health systems so that other vaccines without moral problems become available. They should take recourse, if necessary, to the use of conscientious objection¹⁴ with regard to the use of vaccines produced by means of cell lines of aborted human foetal origin. Equally, they should oppose by all means (in writing, through the various associations, mass media, etc.) the vaccines which do not yet have morally acceptable alternatives, creating pressure so that alternative vaccines are prepared, which are not connected with the abortion of a human foetus, and requesting rigorous legal control of the pharmaceutical industry producers.

As regards the diseases against which there are no alternative vaccines which are available and ethically acceptable, it is right to abstain from using these vaccines if it can be done without causing children, and indirectly the population as a whole, to undergo significant risks to their health. However, if the latter are exposed to considerable dangers to their health, vaccines with moral problems pertaining to them may also be used on a temporary basis.

The moral reason is that the duty to avoid *passive material cooperation* is not obligatory if there is grave inconvenience. Moreover, we find, in such a case, a *proportional reason*, in order to accept the use of these vaccines in the presence of the danger of favouring the spread of the pathological agent, due to the lack of vaccination of children. This is particularly true in the case of vaccination against German measles¹⁵.

In any case, there remains a moral duty to continue to fight and to employ every lawful means in order to make life difficult for the pharmaceutical industries which act unscrupulously and unethically. However, the burden of this important battle cannot and must not fall on innocent children and on the health situation of the population - especially with regard to pregnant women.

To summarize, it must be confirmed that:

- there is a grave responsibility to use alternative vaccines and to make a conscientious objection with regard to those which have moral problems;
- as regards the vaccines without an alternative, the need to contest so that others may be prepared must be reaffirmed, as should be the lawfulness of using the former in the meantime inasmuch as is necessary in order to avoid a serious risk not only for one's own children but also, and perhaps more specifically, for the health conditions of the population as a whole - especially for pregnant women;
- the lawfulness of the use of these vaccines should not be misinterpreted as a declaration of the lawfulness of their production, marketing and use, but is to be understood as being a passive material cooperation and, in its mildest and remotest sense, also active, morally justified as an *extrema ratio* due to the necessity to provide for the good of one's children and of the people who come in contact with the children (pregnant women);
- such cooperation occurs in a context of moral coercion of the conscience of parents, who are forced to choose to act against their conscience or otherwise, to put the health of their children and of the population as a whole at risk. This is an unjust alternative choice, which must be eliminated as soon as possible.

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7. Two other human cell lines, that are permanent, HEK 293 aborted fetal cell line, from primary human embryonic kidney cells transformed by sheared adenovirus type 5 (the fetal kidney material was obtained from an aborted fetus, in 1972 probably), and PER.C6, a fetal cell line created using retinal tissue from an 18 week gestation aborted baby, have been developed for the pharmaceutical manufacturing of adenovirus vectors (for gene therapy). They have not been involved in the making of any of the attenuated live viruses vaccines presently in use because of their capacity to develop tumorigenic cells in the recipient. However some vaccines, still at the developmental stage, against Ebola virus (Crucell,NV and the Vaccine Research Center of the National Institutes of Health's Allergy and Infectious Diseases, NIAID), HIV (Merck), influenza (MedImmune, Sanofi pasteur), Japanese encephalitis (Crucell N.V. and Rhein Biotech N.V.) are prepared using PER.C6® cell line (Crucell N.V., Leiden, The Netherlands).
8. Against these various infectious diseases, there are some alternative vaccines that are prepared using animals' cells or tissues, and are therefore ethically acceptable. Their availability depends on the country in question. Concerning the particular case of the United States, there are no options for the time being in that country for the vaccination against rubella, chickenpox and hepatitis A, other than the vaccines proposed by Merck, prepared using the human cell lines WI-38 and MRC-5. There is a vaccine against smallpox prepared with the Vero cell line (derived from the kidney of an African green monkey), ACAM2000 (Acambis-Baxter) (a second-

generation smallpox vaccine, stockpiled, not approved in the US), which offers, therefore, an alternative to the Acambis 1000. There are alternative vaccines against mumps (Mumpsavax, Merck, measles (Attenuvax, Merck), rabies (RabAvert, Chiron therapeutics), prepared from chicken embryos. (However serious allergies have occurred with such vaccines), poliomyelitis (IPOL, Aventis-Pasteur, prepared with monkey kidney cells) and smallpox (a third-generation smallpox vaccine MVA, Modified Vaccinia Ankara, Acambis-Baxter). In Europe and in Japan, there are other vaccines available against rubella and hepatitis A, produced using non-human cell lines. The Kitasato Institute produce four vaccines against rubella, called Takahashi, TO-336 and Matuba, prepared with cells from rabbit kidney, and one (Matuura) prepared with cells from a quail embryo. The Chemo-sero-therapeutic Research Institute Kaketsuken produce one another vaccine against hepatitis A, called Ainmugen, prepared with cells from monkey kidney. The only remaining problem is with the vaccine Varivax® against chicken pox, for which there is no alternative.

8. The vaccine against rubella using the strain Wistar RA27/3 of live attenuated rubella virus, adapted and propagated in WI-38 human diploid lung fibroblasts is at the centre of present controversy regarding the morality of the use of vaccines prepared with the help of human cell lines coming from aborted fetuses.
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11. Cf. John Paul II, Enc. *Evangelium Vitae*, no. 74.
12. No. 1868 of the *Catechism of the Catholic Church*.
13. The alternative vaccines in question are those that are prepared by means of cell lines which are not of human origin, for example, the Vero cell line (from monkeys) (D. Vinnedge), the kidney cells of rabbits or monkeys, or the cells of chicken embryos. However, it should be noted that grave forms of allergy have occurred with some of the vaccines prepared in this way. The use of recombinant DNA technology could lead to the development of new vaccines in the near future which will no longer require the use of cultures of human diploid cells for the attenuation of the virus and its growth, for such vaccines will not be prepared from a basis of attenuated virus, but from the genome of the virus and from the antigens thus developed (G. C. Woodrow, W.M. McDonnell and F.K. Askari). Some experimental studies have already been done using vaccines developed from DNA that has been derived from the genome of the German measles virus. Moreover, some Asiatic researchers are trying to use the Varicella virus as a vector for the insertion of genes which codify the viral antigens of Rubella. These studies are still at a preliminary phase and the refinement of vaccine preparations which can be used in clinical practice will require a lengthy period of time and will be at high costs. .D. Vinnedge, *The Smallpox Vaccine*, The National Catholic Bioethics Quarterly, Spring 2000, vol.2, no. 1, p. 12. .G.C. Woodrow, *An Overview of Biotechnology As Applied to Vaccine Development*, in *(New Generation Vaccines)*, G.C. Woodrow, M.M. Levine eds., Marcel Dekker Inc., New York and Basel, 1990, see pp.32-37. W.M. McDonnell, F.K. Askari, *Immunization*, JAMA, 10th December 1997, vol.278, no.22, pp.2000-2007, see pp. 2005-2006.
14. Such a duty may lead, as a consequence, to taking recourse to "objection of conscience" when the action recognized as illicit is an act permitted or even encouraged by the laws of the country and poses a threat to human life. The Encyclical Letter *Evangelium Vitae* underlined this "obligation to oppose" the laws which permit abortion or euthanasia "by conscientious objection" (no.73)
15. This is particularly true in the case of vaccination against German measles, because of the danger of Congenital Rubella Syndrome. This could occur, causing grave congenital malformations in the foetus, when a pregnant woman enters into contact, even if it is brief, with children who have not been immunized and are carriers of the virus. In this case, the parents who did not accept the vaccination of their own children become responsible for the malformations in question, and for the subsequent abortion of foetuses, when they have been discovered to be malformed.

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UNITED STATES DISTRICT COURT
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Exhibit 16

The Plant Strong Club

Dr. Judy Mikovits and Dr. Sherri Tenpenny: A New COVID Vaccine Could Kill 50 Million People in the U.S.



[\(https://healthimpactnews.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/\)](https://healthimpactnews.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/)

Comments by Brian Shilhavy
Editor, Health Impact News

Dr. Sherri Tenpenny and Dr. Judy Mikovits have both been recent guests on LondonReal.tv, and interviewed by Brian Rose. LondonReal.tv recently had to develop their own video platform to beat the Facebook and Google YouTube censorship, as Brian Rose frequently interviews doctors and scientists the corporate media and Big Tech desperately want to censor.

We have featured the work of both women frequently here on *Health Impact News*.

Judy A. Mikovits, PhD, earned her BA from University of Virginia and PhD in Biochemistry and Molecular Biology from George Washington University. In just over twenty years she rose from an entry-level lab technician to become director of the lab of Antiviral Drug Mechanisms at the National Cancer Institute before leaving to direct the Cancer Biology program at EpiGenX Pharmaceuticals in Santa Barbara, California.

She has published over 50 scientific papers.

Dr. Mikovits spoke the truth about the fraudulent use of government research money, the marketing of inaccurate retrovirus tests, Medicare fraud, the contaminated blood supply, and the harm that is associated with vaccines and their schedule of administration.

Her research showed how retroviruses are linked to the plague of modern illnesses that are bankrupting the U.S. healthcare system.

She was arrested without a warrant and held in jail for 5 days without the opportunity for bail as a fugitive from justice. Her career was destroyed.

Her story is documented in the book *Plague: One Scientist's intrepid Search For the Truth about Human Retroviruses and Chronic Fatigue Syndrome, Autism, and Other Diseases* (<http://www.plaguethebook.com/plague---home.html>).

Dr. Sherri Tenpenny is an osteopathic medical doctor, board-certified in three specialties. She is the founder of Tenpenny Integrative Medical Center, (<http://www.tenpennyimc.com/>) a medical clinic located near Cleveland, Ohio. Her company, Courses4Mastery.com (<http://www.courses4mastery.com/>) provides online education and training regarding all aspects of vaccines and vaccination.

Dr. Tenpenny has invested nearly 20 years and more than 40,000 hours documenting and exposing the problems associated with vaccines. As an internationally known speaker and author, her many articles have been translated into at least 15 languages.

She offers online education on the topic of vaccines, and her yearly Mastering VaccineInfo Boot Camp (<https://vaxxter.com/category/boot-camp-information/>) is probably the most comprehensive training in the truth about vaccines found anywhere.

Dr. Mikovits was the first one interviewed, and during the course of that interview (<https://londonreal.tv/is-coronavirus-a-plandemic-exposing-the-truth-behind-americas-covid-19-strategy-dr-judy-mikovits/>), Brian Rose asked her about the COVID-19 vaccine that is being fast-tracked, with some pharmaceutical companies saying they will have a vaccine by this fall.

Dr. Mikovits discusses the absurdity of giving a COVID-19 vaccine to healthy people who would already most likely have natural immunity. She states:

So now you're going to inject an agent, into every cell in the body. I just can't even imagine a recipe for anything other than what I would consider mass murder on a scale where 50 million people will die in America from the vaccine.

Watch her full statement.

Dr. Mikovits is part of a new film being produced called "Plandemic," and a trailer featuring her testimony has gone viral in recent weeks in spite of efforts to censor it, with some estimates guessing that it may have been viewed by well over 20 million people already.

She states that the man who directed the smear campaign to try and silence her was Dr. Anthony Fauci, currently on President Trump's Coronavirus Task Force.

Dr. Mikovits claims other heads of the Department of Health and Human Services (HHS) colluded to silence her and suppress her research.

Willis: Apparently their attempts to silence you have failed. And I have to ask, how do you sit here with confidence to call out these great forces and not fear for your life?

Dr. Mikovits: Because if we don't stop this now, we can not only forget our Republic and our freedom, but we can forget humanity, because we'll be killed by this agenda.

Watch the trailer of what is currently probably the most banned video in the world right now:

About a week after Brian Rose interviewed Dr. Mikovits, he did a show with Dr. Sherri Tenpenny.

He mentioned Dr. Mikovits' prediction that if we went full steam ahead with this new COVID vaccine that 50 million people would die, and asked Dr. Tenpenny if she agreed.

Not only did Dr. Tenpenny say she agreed with Dr. Mikovits' prediction of deaths in the U.S. from a COVID vaccine, but she stated that there would also be many who are injured by the vaccine who might wish they were dead:

"There are some things worse than death."

Watch her full response:

Here is [her full interview with Brian Rose on LondonReal.tv \(https://londonreal.tv/how-the-coronavirus-pandemic-is-the-biggest-scam-ever-perpetrated-on-the-human-race-dr-sherri-tenpenny/\)](https://londonreal.tv/how-the-coronavirus-pandemic-is-the-biggest-scam-ever-perpetrated-on-the-human-race-dr-sherri-tenpenny/).

Comment on this article at [VaccineImpact.com \(https://vaccineimpact.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/\)](https://vaccineimpact.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/).

Source: [Dr. Judy Mikovits and Dr. Sherri Tenpenny: A New COVID Vaccine Could Kill 50 Million People in the U.S. \(https://healthimpactnews.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/\)](https://healthimpactnews.com/2020/dr-judy-mikovits-and-dr-sherri-tenpenny-a-new-covid-vaccine-could-kill-50-million-people-in-the-u-s/)

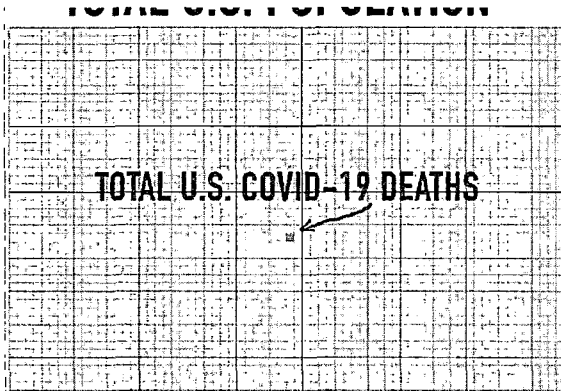
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Exhibit 17



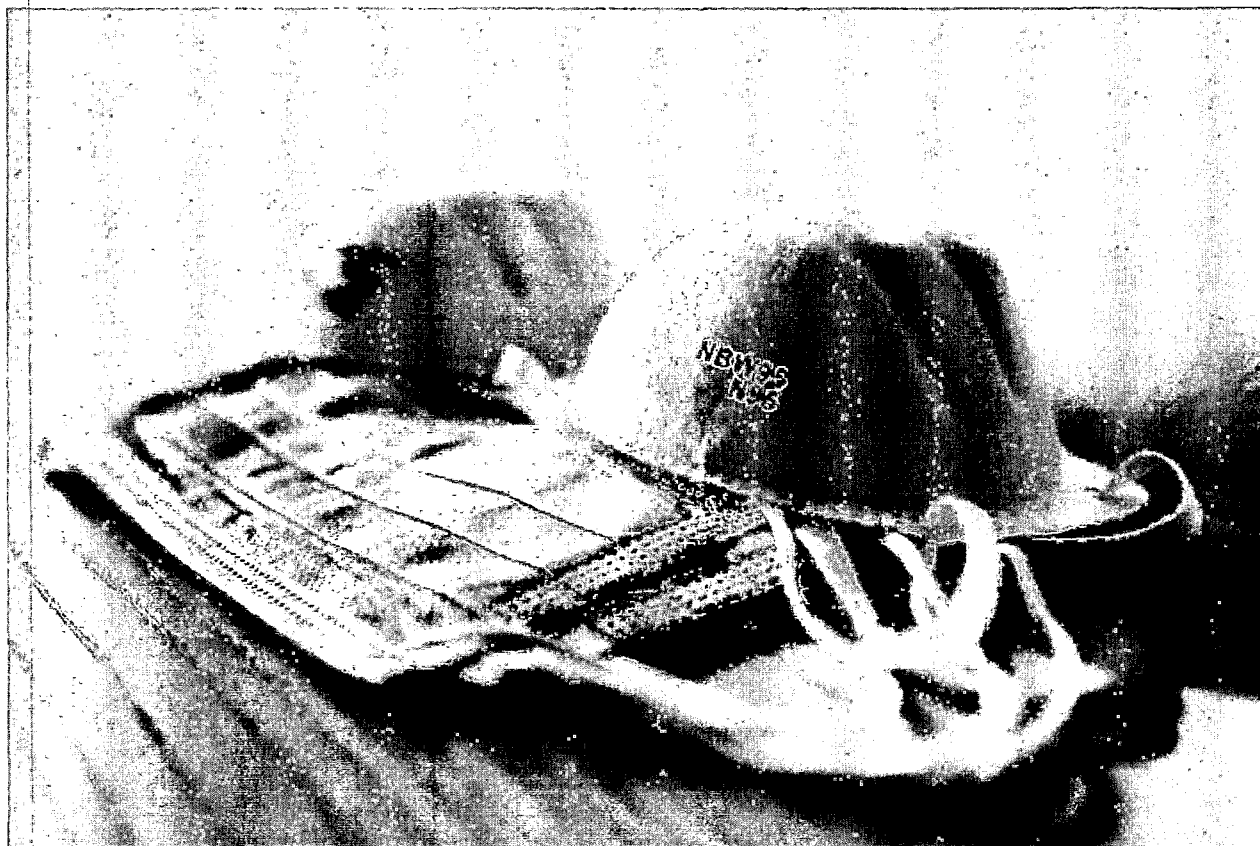
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Masks Don't Work: A Review of Science Relevant to COVID-19 Social Policy (/commentary/masks-dont-work-covid-a-review-of-science-relevant-to-covide-19-social-policy)

By Denis G. Rancourt, PhD (/authors/Denis-G.-Rancourt,-PhD)



Masks and respirators do not work.

There have been extensive randomized controlled trial (RCT) studies, and meta-analysis reviews of RCT studies, which all show that masks and respirators do not work to prevent respiratory influenza-like illnesses, or respiratory illnesses believed to be transmitted by droplets and aerosol particles.

Furthermore, the relevant known physics and biology, which I review, are such that masks and respirators should not work. It would be a paradox if masks and respirators worked, given what we know about viral respiratory diseases: The main transmission path is long-residence-time aerosol particles ($< 2.5 \mu\text{m}$), which are too fine to be blocked, and the minimum-infective dose is smaller than one aerosol particle.

The present paper about masks illustrates the degree to which governments, the mainstream media, and institutional propagandists can decide to operate in a science vacuum, or select only incomplete science that serves their interests. Such recklessness is also certainly the case with the current global lockdown of over 1 billion people, an unprecedented experiment in medical and political history.

(From Words from the Publisher (<https://www.rcreader.com/commentary/lockdowns-an-unprecedented-experiment-sometimes-you-gotta-wear-the-stupid>): "We pledge to publish all letters, guest commentaries, or studies refuting [Rancourt's] general premise that this mask-wearing culture and shaming could be more harmful than helpful. Please send your feedback to info@rcreader.com (<http://mailto:info@rcreader.com>).")

ANTI-MASKERS: RIGHT OR SELFISH?



Review of the Medical Literature

Here are key anchor points to the extensive scientific literature that establishes that wearing surgical masks and respirators (e.g., "N95") does not reduce the risk of contracting a verified illness:

Jacobs, J. L. et al. (2009) "Use of surgical face masks to reduce the incidence of the common cold among health care workers in Japan: A randomized controlled trial," *American Journal of Infection Control*, Volume 37, Issue 5, 417 – 419. <https://www.ncbi.nlm.nih.gov/pubmed/19216002>
(<https://www.ncbi.nlm.nih.gov/pubmed/19216002>)

N95-masked health-care workers (HCW) were significantly more likely to experience headaches. Face mask use in HCW was not demonstrated to provide benefit in terms of cold symptoms or getting colds.

Cowling, B. et al. (2010) "Face masks to prevent transmission of influenza virus: A systematic review," *Epidemiology and Infection*, 138(4), 449-456.
<https://www.cambridge.org/core/journals/epidemiology-and-infection/article/face-masks-to-prevent-transmission-of-influenza-virus-a-systematic-review/64D368496EBDE0AFCC6639CCC9D8BC05>
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None of the studies reviewed showed a benefit from wearing a mask, in either HCW or community members in households (H). See summary Tables 1 and 2 therein.

bin-Reza et al. (2012) "The use of masks and respirators to prevent transmission of influenza: a systematic review of the scientific evidence," *Influenza and Other Respiratory Viruses* 6(4), 257–267.
<https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1750-2659.2011.00307.x>
(<https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1750-2659.2011.00307.x>)

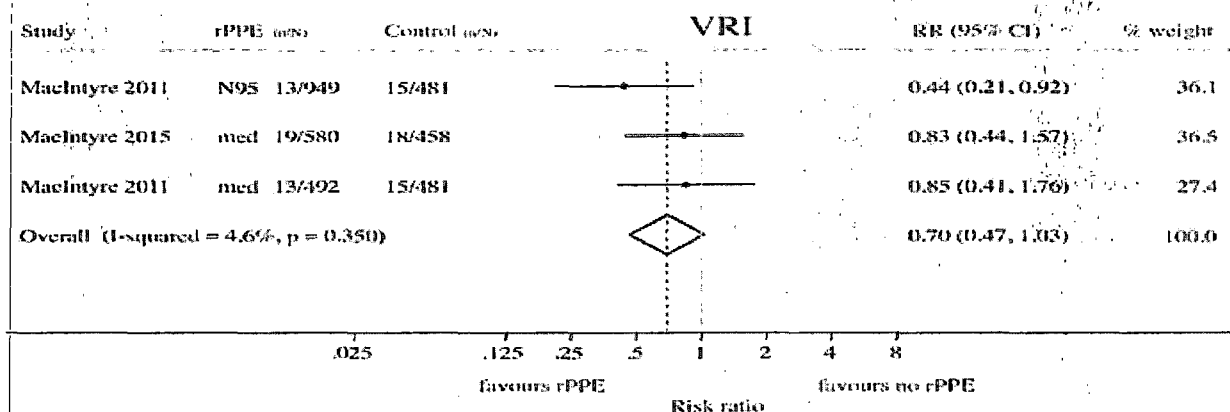
"There were 17 eligible studies. ... None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection."

Smith, J.D. et al. (2016) "Effectiveness of N95 respirators versus surgical masks in protecting health care workers from acute respiratory infection: a systematic review and meta-analysis," *CMAJ* Mar 2016 <https://www.cmaj.ca/content/188/8/567> (<https://www.cmaj.ca/content/188/8/567>)

"We identified six clinical studies In the meta-analysis of the clinical studies, we found no significant difference between N95 respirators and surgical masks in associated risk of (a) laboratory-confirmed respiratory infection, (b) influenza-like illness, or (c) reported work-place absenteeism."

Offeddu, V. et al. (2017) "Effectiveness of Masks and Respirators Against Respiratory Infections in Healthcare Workers: A Systematic Review and Meta-Analysis," *Clinical Infectious Diseases*, Volume 65, Issue 11, 1 December 2017, Pages 1934–1942,
<https://academic.oup.com/cid/article/65/11/1934/4068747>
(<https://academic.oup.com/cid/article/65/11/1934/4068747>)

"Self-reported assessment of clinical outcomes was prone to bias. Evidence of a protective effect of masks or respirators against verified respiratory infection (VRI) was not statistically significant"; as per Fig. 2c therein:



Radonovich, L.J. et al. (2019) "N95 Respirators vs Medical Masks for Preventing Influenza Among Health Care Personnel: A Randomized Clinical Trial," *JAMA*. 2019; 322(9): 824–833.

<https://jamanetwork.com/journals/jama/fullarticle/2749214>

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"Among 2862 randomized participants, 2371 completed the study and accounted for 5180 HCW-seasons. ... Among outpatient health care personnel, N95 respirators vs medical masks as worn by participants in this trial resulted in no significant difference in the incidence of laboratory-confirmed influenza."

Long, Y. et al. (2020) "Effectiveness of N95 respirators versus surgical masks against influenza: A systematic review and meta-analysis," *J Evid Based Med*. 2020; 1- 9.

<https://onlinelibrary.wiley.com/doi/epdf/10.1111/jebm.12381>

(<https://onlinelibrary.wiley.com/doi/epdf/10.1111/jebm.12381>)

"A total of six RCTs involving 9,171 participants were included. There were no statistically significant differences in preventing laboratory-confirmed influenza, laboratory-confirmed respiratory viral infections, laboratory-confirmed respiratory infection, and influenza-like illness using N95 respirators and surgical masks. Meta-analysis indicated a protective effect of N95 respirators against laboratory-confirmed bacterial colonization (RR = 0.58, 95% CI 0.43-0.78). The use of N95 respirators compared with surgical masks is not associated with a lower risk of laboratory-confirmed influenza."

Conclusion Regarding That Masks Do Not Work

No RCT study with verified outcome shows a benefit for HCW or community members in households to wearing a mask or respirator. There is no such study. There are no exceptions.

Likewise, no study exists that shows a benefit from a broad policy to wear masks in public (more on this below).

Furthermore, if there were any benefit to wearing a mask, because of the blocking power against droplets and aerosol particles, then there should be more benefit from wearing a respirator (N95) compared to a surgical mask, yet several large meta-analyses, and all the RCT, prove that there is no such relative benefit.

Masks and respirators do not work.

Precautionary Principle Turned on Its Head with Masks

In light of the medical research, therefore, it is difficult to understand why public-health authorities are not consistently adamant about this established scientific result, since the distributed psychological, economic, and environmental harm from a broad recommendation to wear masks is significant, not to mention the unknown potential harm from concentration and distribution of pathogens on and from used masks. In this case, public authorities would be turning the precautionary principle on its head (see below).

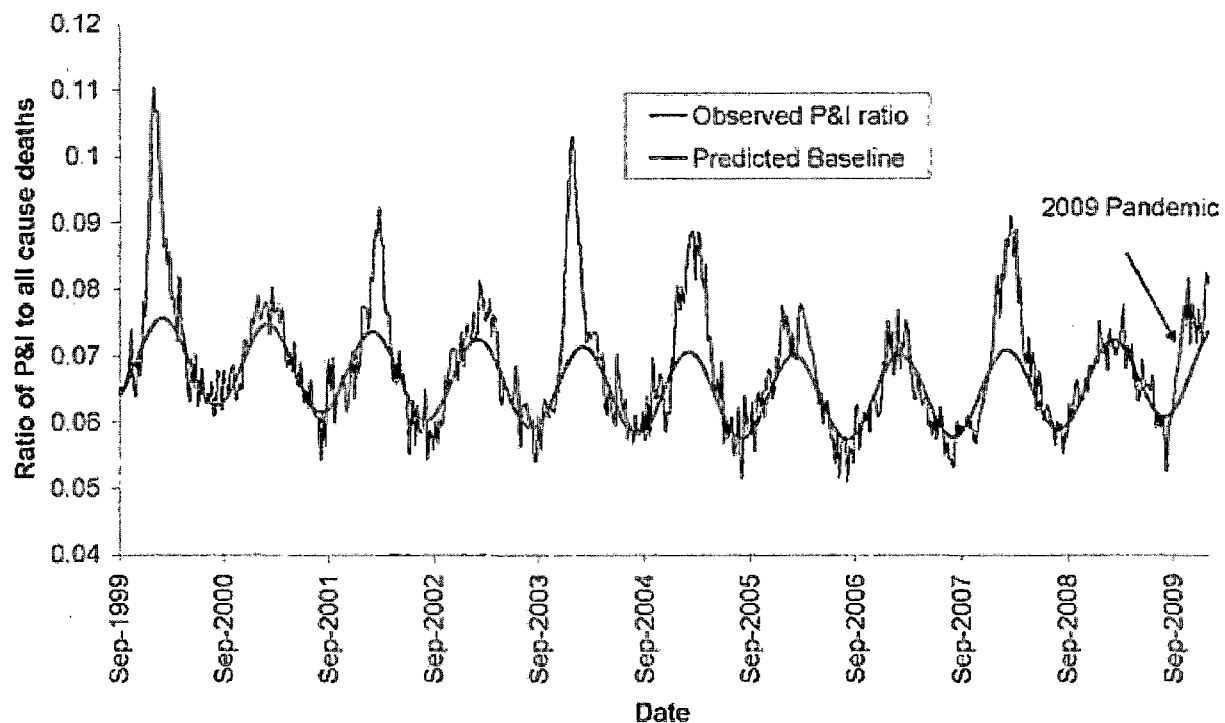
Physics and Biology of Viral Respiratory Disease and of Why Masks Do Not Work

In order to understand why masks cannot possibly work, we must review established knowledge about viral respiratory diseases, the mechanism of seasonal variation of excess deaths from pneumonia and influenza, the aerosol mechanism of infectious disease transmission, the physics and chemistry of aerosols, and the mechanism of the so-called minimum-infective-dose.

In addition to pandemics that can occur anytime, in the temperate latitudes there is an extra burden of respiratory-disease mortality that is seasonal, and that is caused by viruses. For example, see the review of influenza by Paules and Subbarao (2017). This has been known for a long time, and the seasonal pattern is exceedingly regular. *(Publisher's note: All links to source references to studies here forward are found at the end of this article.)*

For example, see Figure 1 of Viboud (2010), which has "Weekly time series of the ratio of deaths from pneumonia and influenza to all deaths, based on the 122 cities surveillance in the US (blue line). The red line represents the expected baseline ratio in the absence of influenza activity," here:

122 cities weekly P&I mortality data



The seasonality of the phenomenon was largely not understood until a decade ago. Until recently, it was debated whether the pattern arose primarily because of seasonal change in virulence of the pathogens, or because of seasonal change in susceptibility of the host (such as from dry air causing tissue irritation, or diminished daylight causing vitamin deficiency or hormonal stress). For example, see Dowell (2001).

In a landmark study, Shaman et al. (2010) showed that the seasonal pattern of extra respiratory-disease mortality can be explained quantitatively on the sole basis of absolute humidity, and its direct controlling impact on transmission of airborne pathogens.

Lowen et al. (2007) demonstrated the phenomenon of humidity-dependent airborne-virus virulence in actual disease transmission between guinea pigs, and discussed potential underlying mechanisms for the measured controlling effect of humidity.

The underlying mechanism is that the pathogen-laden aerosol particles or droplets are neutralized within a half-life that monotonically and significantly decreases with increasing ambient humidity. This is based on the seminal work of Harper (1961). Harper experimentally showed that viral-pathogen-carrying droplets were inactivated within shorter and shorter times, as ambient humidity was increased.

Harper argued that the viruses themselves were made inoperative by the humidity ("viable decay"), however, he admitted that the effect could be from humidity-enhanced physical removal or sedimentation of the droplets ("physical loss"): "Aerosol viabilities reported in this paper are based on the ratio of virus titre to radioactive count in suspension and cloud samples, and can be criticized on the ground that test and tracer materials were not physically identical."

The latter ("physical loss") seems more plausible to me, since humidity would have a universal physical effect of causing particle/droplet growth and sedimentation, and all tested viral pathogens have essentially the same humidity-driven "decay." Furthermore, it is difficult to understand how a virion (of all virus types) in a droplet would be molecularly or structurally attacked or damaged by an increase in ambient humidity. A "virion" is the complete, infective form of a virus outside a host cell, with a core of RNA or DNA and a capsid. The actual mechanism of such humidity-driven intra-droplet "viable decay" of a virion has not been explained or studied.

In any case, the explanation and model of Shaman et al. (2010) is not dependent on the particular mechanism of the humidity-driven decay of virions in aerosol/droplets. Shaman's quantitatively demonstrated model of seasonal regional viral epidemiology is valid for either mechanism (or combination of mechanisms), whether "viable decay" or "physical loss."

The breakthrough achieved by Shaman et al. is not merely some academic point. Rather, it has profound health-policy implications, which have been entirely ignored or overlooked in the current coronavirus pandemic.

In particular, Shaman's work necessarily implies that, rather than being a fixed number (dependent solely on the spatial-temporal structure of social interactions in a completely susceptible population, and on the viral strain), the epidemic's **basic reproduction number** (R_0) is highly or predominantly dependent on ambient absolute humidity.

For a definition of R_0 , see HealthKnowledge-UK (2020): R_0 is "the average number of secondary infections produced by a typical case of an infection in a population where everyone is susceptible." The average R_0 for influenza is said to be 1.28 (1.19–1.37); see the comprehensive review by Biggerstaff et al. (2014).

In fact, Shaman et al. showed that R_0 must be understood to seasonally vary between humid-summer values of just larger than "1" and dry-winter values typically as large as "4" (for example, see their Table 2). In other words, the seasonal infectious viral respiratory diseases that plague temperate latitudes every year go from being intrinsically mildly contagious to virulently contagious, due simply to the bio-physical mode of transmission controlled by atmospheric humidity, irrespective of any other consideration.

Therefore, all the epidemiological mathematical modeling of the benefits of mediating policies (such as social distancing), which assumes humidity-independent R_0 values, has a large likelihood of being of little value, on this basis alone. For studies about modeling and regarding mediation effects on the effective reproduction number, see Coburn (2009) and Tracht (2010).

To put it simply, the "second wave" of an epidemic is not a consequence of human sin regarding mask wearing and hand shaking. Rather, the "second wave" is an inescapable consequence of an air-dryness-driven many-fold increase in disease contagiousness, in a population that has not yet attained immunity.

If my view of the mechanism is correct (i.e., "physical loss"), then Shaman's work further necessarily implies that the dryness-driven high transmissibility (large R_0) arises from small aerosol particles fluidly suspended in the air; as opposed to large droplets that are quickly gravitationally removed from the air.

Such small aerosol particles fluidly suspended in air, of biological origin, are of every variety and are everywhere, including down to virion-sizes (Despres, 2012). It is not entirely unlikely that viruses can thereby be physically transported over inter-continental distances (e.g., Hammond, 1989).

More to the point, indoor airborne virus concentrations have been shown to exist (in day-care facilities, health centers, and on-board airplanes) primarily as aerosol particles of diameters smaller than $2.5\ \mu\text{m}$, such as in the work of Yang et al. (2011):

"Half of the 16 samples were positive, and their total virus ~ 3 concentrations ranged from 5800 to 37 000 genome copies m^{-3} . On average, 64 per cent of the viral genome copies were associated with fine particles smaller than $2.5\ \mu\text{m}$, which can remain suspended for hours. Modeling of virus concentrations indoors suggested a source strength of $1.6 \pm 1.2 \times 10^5$ genome copies m^{-3} air h^{-1} and a deposition flux onto surfaces of 13 ± 7 genome copies m^{-2} h^{-1} by Brownian motion. Over one hour, the inhalation dose was estimated to be 30 ± 18 median tissue culture infectious dose (TCID₅₀), adequate to induce infection. These results provide quantitative support for the idea that the aerosol route could be an important mode of influenza transmission."

Such small particles ($< 2.5\ \mu\text{m}$) are part of air fluidity, are not subject to gravitational sedimentation, and would not be stopped by long-range inertial impact. This means that the slightest (even momentary) facial misfit of a mask or respirator renders the design filtration norm of the mask or respirator entirely irrelevant. In any case, the filtration material itself of N95 (average pore size $\sim 0.3\text{--}0.5\ \mu\text{m}$) does not block virion penetration, not to mention surgical masks. For example, see Balazy et al. (2006).

Mask stoppage efficiency and host inhalation are only half of the equation, however, because the minimal infective dose (MID) must also be considered. For example, if a large number of pathogen-laden particles must be delivered to the lung within a certain time for the illness to take hold, then partial blocking by any mask or cloth can be enough to make a significant difference.

On the other hand, if the MID is amply surpassed by the virions carried in a single aerosol particle able to evade mask-capture, then the mask is of no practical utility, which is the case.

Yezli and Otter (2011), in their review of the MID, point out relevant features:

1. Most respiratory viruses are as infective in humans as in tissue culture having optimal laboratory susceptibility
2. It is believed that a single virion can be enough to induce illness in the host
3. The 50-percent probability MID ("TCID50") has variably been found to be in the range 100–1000 virions
4. There are typically 10 to 3rd power – 10 to 7th power virions per aerolized influenza droplet with diameter 1 μm – 10 μm
5. The 50-percent probability MID easily fits into a single (one) aerolized droplet
6. For further background:
7. A classic description of dose-response assessment is provided by Haas (1993).
8. Zwart et al. (2009) provided the first laboratory proof, in a virus-insect system, that the action of a single virion can be sufficient to cause disease.
9. Baccam et al. (2006) calculated from empirical data that, with influenza A in humans, "we estimate that after a delay of ~6 h, infected cells begin producing influenza virus and continue to do so for ~5 h. The average lifetime of infected cells is ~11 h, and the half-life of free infectious virus is ~3 h. We calculated the [in-body] basic reproductive number, R_0 , which indicated that a single infected cell could produce ~22 new productive infections."
10. Brooke et al. (2013) showed that, contrary to prior modeling assumptions, although not all influenza-A-infected cells in the human body produce infectious progeny (virions), nonetheless, 90 percent of infected cell are significantly impacted, rather than simply surviving unharmed.

All of this to say that: if anything gets through (and it always does, irrespective of the mask), then you are going to be infected. Masks cannot possibly work. It is not surprising, therefore, that no bias-free study has ever found a benefit from wearing a mask or respirator in this application.

Therefore, the studies that show partial stopping power of masks, or that show that masks can capture many large droplets produced by a sneezing or coughing mask-wearer, in light of the above-described features of the problem, are irrelevant. For example, such studies as these: Leung (2020), Davies (2013), Lai (2012), and Sande (2008).

Why There Can Never Be an Empirical Test of a Nation-Wide Mask-Wearing Policy

As mentioned above, no study exists that shows a benefit from a broad policy to wear masks in public. There is good reason for this. It would be impossible to obtain unambiguous and bias-free results [because]:

1. Any benefit from mask-wearing would have to be a small effect, since undetected in controlled experiments, which would be swamped by the larger effects, notably the large effect from changing atmospheric humidity.
2. Mask compliance and mask adjustment habits would be unknown.
3. Mask-wearing is associated (correlated) with several other health behaviors; see Wada (2012).
4. The results would not be transferable, because of differing cultural habits.
5. Compliance is achieved by fear, and individuals can habituate to fear-based propaganda, and can have disparate basic responses.
6. Monitoring and compliance measurement are near-impossible, and subject to large errors.
7. Self-reporting (such as in surveys) is notoriously biased, because individuals have the self-interested belief that their efforts are useful.
8. Progression of the epidemic is not verified with reliable tests on large population samples, and generally relies on non-representative hospital visits or admissions.
9. Several different pathogens (viruses and strains of viruses) causing respiratory illness generally act together, in the same population and/or in individuals, and are not resolved, while having different epidemiological characteristics.

Unknown Aspects of Mask Wearing

Many potential harms may arise from broad public policies to wear masks, and the following unanswered questions arise:

1. Do used and loaded masks become sources of enhanced transmission, for the wearer and others?
2. Do masks become collectors and retainers of pathogens that the mask wearer would otherwise avoid when breathing without a mask?
3. Are large droplets captured by a mask atomized or aerolized into breathable components? Can virions escape an evaporating droplet stuck to a mask fiber?
4. What are the dangers of bacterial growth on a used and loaded mask?
5. How do pathogen-laden droplets interact with environmental dust and aerosols captured on the mask?
6. What are long-term health effects on HCW, such as headaches, arising from impeded breathing?
7. Are there negative social consequences to a masked society?
8. Are there negative psychological consequences to wearing a mask, as a fear-based behavioral modification?
9. What are the environmental consequences of mask manufacturing and disposal?

10. Do the masks shed fibers or substances that are harmful when inhaled?

Conclusion

By making mask-wearing recommendations and policies for the general public, or by expressly condoning the practice, governments have both ignored the scientific evidence and done the opposite of following the precautionary principle.

In an absence of knowledge, governments should not make policies that have a hypothetical potential to cause harm. The government has an onus barrier before it instigates a broad social-engineering intervention, or allows corporations to exploit fear-based sentiments.

Furthermore, individuals should know that there is no known benefit arising from wearing a mask in a viral respiratory illness epidemic, and that scientific studies have shown that any benefit must be residually small, compared to other and determinative factors.

Otherwise, what is the point of publicly funded science?

The present paper about masks illustrates the degree to which governments, the mainstream media, and institutional propagandists can decide to operate in a science vacuum, or select only incomplete science that serves their interests. Such recklessness is also certainly the case with the current global lockdown of over 1 billion people, an unprecedented experiment in medical and political history.

Denis G. Rancourt is a researcher at the Ontario Civil Liberties Association (OCLA.ca) and is formerly a tenured professor at the University of Ottawa, Canada. This paper was originally published at Rancourt's account on ResearchGate.net. As of June 5, 2020, this paper was removed from his profile by its administrators at Rese

(http://Researchgate.net/profile/D_Rancourt)archgate.net/profile/D_Rancourt (http://Researchgate.net/profile/D_Rancourt). At Rancourt's blog ActivistTeacher (<http://activistteacher.blogspot.com/2020/06/covid-censorship-at-researchgate-things.html>). (<http://activistteacher.blogspot.com/2020/06/covid-censorship-at-researchgate-things.html>)blogspot.com (<http://activistteacher.blogspot.com/2020/06/covid-censorship-at-researchgate-things.html>), he recounts the notification and responses he received from ResearchGate.net and states, "This is censorship of my scientific work like I have never experienced before."

The original April 2020 white paper in .pdf format is available here (<https://www.rcreader.com/y/mask8>), complete with charts that have not been reprinted in the Reader print or web versions.

RELATED COMMENTARY: An Unprecedented Experiment: Sometimes You Just Gotta Wear the Stupid (<https://www.rcreader.com/commentary/lockdowns-an-unprecedented-experiment-sometimes-you-gotta-wear-the-stupid>)

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20-cv-651 (GLS/DJS)

v.

ANDREW M. CUOMO et al.,
Defendants.

AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO
ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS'
DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE
AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE

Exhibit 18

MEGAN MOLTENI SCIENCE 06.01.2020 07:00 PM

Meet ACE2, the Enzyme at the Center of the Covid-19 Mystery

Since January, scientists have published more than 700 studies to figure out the molecule's link to risk for the disease—and to find possible treatments.



Over and over, the researchers found no differences in ACE2 expression between women and men, or young adults and older ones. But the smokers were a different story. PHOTOGRAPH: ALEX APTSIAURI/GETTY IMAGES

DURING THE FIRST chaotic months of the Covid-19 pandemic, it was already clear that the novel coronavirus spreading around the world didn't affect everyone equally. The earliest clinical data out of China showed that some people consistently fared worse than others, notably men, the elderly, and smokers. It made some scientists wonder: What if the elevated risk of severe infection and death shared by these different people all boils down to differences in a single protein?



Everything You Need to Know About the Coronavirus

Here's all the WIRED coverage in one place, from how to keep your children entertained to how this outbreak is affecting the economy.

Jason Sheltzer, a molecular biologist at Cold Spring Harbor Laboratory, started talking about this possibility with his partner, Joan Smith, a software engineer at Google, during the early days of their New York lockdown. "We

thought maybe the simplest explanation could be if all these factors affected the expression of ACE2,” says Sheltzer.

ACE2, which stands for angiotensin-converting enzyme 2, is a protein that sits on the surface of many types of cells in the human body, including in the heart, gut, lungs, and inside the nose. It’s a key cog in a biochemical pathway that regulates blood pressure, wound healing, and inflammation. ACE2’s amino acids form a grooved pocket, allowing it to snag and chop up a destructive protein called angiotensin II, which drives up blood pressure and damages tissues. But angiotensin II isn’t the only thing that fits in ACE2’s pocket. So does the tip of the mace-like spike proteins that project from SARS-CoV-2, the coronavirus that causes Covid-19. Like a key turning in a latch, the virus gains entry to the cell through ACE2, then hijacks the cell’s protein-making machinery to make copies of itself. An infection begins.

In the early days of the pandemic, the thinking went something like this: The more ACE2 a person has, the easier it should be for the coronavirus to invade and advance through their tissues, causing more severe forms of the disease. The more ways inside someone’s cells, the higher the person’s risk. That’s the hypothesis Sheltzer and Smith were interested in investigating. They weren’t alone. As the virus spread beyond China, other high-risk groups surfaced: people with heart conditions, high blood pressure, diabetes, and obesity. Many people in these groups take medications that are known to boost ACE2 expression. So again, scientists wondered, could that protein be responsible?

But as researchers began to probe the relationship between ACE2 and this dangerous new disease, the data refused to line up in any neat, predictable patterns. “What we know now is that there aren’t any simplistic, reductionist explanations that can unify all the clinical data that’s been recovered so far,”

says Sheltzer. Instead, a more complicated picture has emerged. But it's one that still has ACE2 at the center of the action.

Smoking Dials Up the ACE2

Sheltzer and Smith, confined to their home, couldn't run any experiments to tease out their initial hypothesis. Instead, they combed through existing data sets from both animal and human studies that measured the level of gene expression in various tissues. Over and over, they found that women and men produced similar amounts of ACE2 inside their lung cells. They also couldn't find any differences between young adults and older ones. Aging didn't change ACE2 one way or another. But the smokers were a different story.

When they looked at gene expression inside the lungs of smokers versus nonsmokers, they saw a huge spike in ACE2 coming from one particular kind of cell: secretory goblet cells. The job of these mucous-makers is to coat the inside of the respiratory tract, protecting it from any irritants you might breathe in (like say, tar, nicotine, or any of the other 250 harmful chemicals in cigarette smoke). The more people smoked, the more their goblet cells multiplied in an effort to trap these chemicals before they could damage surrounding tissue. Those expanding goblet cell army ranks fueled a surge in ACE2, as Sheltzer and his coauthors described in a study published in *Developmental Cell* in mid-May.

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“Our analysis suggests a partial explanation for the link between smoking and the coronavirus,” says Sheltzer. Another study, conducted at the University of British Columbia, published two days earlier also found that the cells of smokers and those with chronic obstructive pulmonary disease, or COPD, produced more ACE2.

To really understand if that link is causative though, will take more time and lab experiments. Scheltzer’s team is just getting started with those—growing lung cells in dishes, bathing some of them in cigarette smoke inside an enclosed chamber, and then adding live SARS-CoV-2 to see if the smoke-exposed cells produce more ACE2 and are more likely to get infected than the smoke-free cells.

Drugs Can Alter ACE2, Too

Because SARS-CoV-2 primarily attacks the lungs, doctors and scientists expected people with asthma to also be among the most vulnerable to Covid-19. But data out of China and New York indicates that asthma patients make up just a very small fraction of people hospitalized with Covid-19. “No one really knows why that is,” says Michael Peters, a pulmonologist at UC San Francisco. For the past seven years, he and his colleagues at six other clinical research centers have been studying a group of 400 asthma patients, trying to understand the biological mechanisms behind how the disease develops and progresses in different people.

In a study published in April in the *American Journal of Respiratory and Critical Care Medicine*, the researchers looked at how much ACE2 their patients were producing in their lungs’ immune cells. While they didn’t see

much difference between asthma patients and healthy people, they did find that asthma patients who used steroid inhalers had noticeably less ACE2. In general, steroids tamp down inflammation, and early on doctors in China used them to treat serious cases of Covid-19. “Our data suggests inhaled corticosteroids might be one reason why asthma hasn’t emerged as a big risk factor for Covid-19,” says Peters. “But it’s still really unclear if that’s the only thing going on.”

In other words, asthma patients might be biologically more vulnerable, but in practice they could be protected by steroid treatments that knock down ACE2 production. And inhalers aren’t the only drugs that can modify ACE2 expression. During the early days of the outbreak, some researchers noticed that many Covid-19 patients had high blood pressure, and to lower it, were taking two classes of medications known to increase levels of ACE2. That idea prompted doctors around the world in March to warn the millions of people taking these drugs—angiotensin II receptor blockers (ARBs) and angiotensin-converting enzyme inhibitors (ACEIs)—of a potential increased risk of catching Covid-19.

Read all of our coronavirus coverage here.

That hypothesis has since collapsed. A series of large epidemiological studies looking at Covid-19 patients on these drugs found them to be harmless. At least a dozen medical societies and associations, including the American College of Physicians and the American Heart Association, issued statements saying that people taking antihypertensive medications should continue to do so. “The fear was that in the same way people have been self-medicating with things like hydroxychloroquine, they would start to self-de-

medicate, which could be equally disastrous,” says Paul Insel, a molecular pharmacologist at UC San Diego, who has coauthored a forthcoming review of the risks of ACEIs and ARBs to Covid-19 patients.

He says it would be a mistake for people to try to lower their levels of ACE2. Without it, the hormone angiotensin II builds up, which not only raises blood pressure but also can trigger dangerous storms of inflammatory molecules and cause tissue damage. And it would probably be futile, since the coronavirus doesn’t need that many molecular doors; scientists estimate it only takes a few thousand SARS-CoV-2 particles to establish an infection.

Striking the ACE2 Balance

In fact, scientists like Insel are beginning to suspect that some of the more severe Covid-19 symptoms may actually be caused by not having *enough* ACE2. When the virus binds to the receptor, it clogs it up so it can’t do its regular job. Additionally, the cell responds to this attack by sending out a different enzyme to shear all the remaining ACE2 receptors off its surface. That leaves those tissues with no way to put the brakes on runaway inflammation, leading to more cell death.

“That’s the double-edged sword,” says Gavin Oudit, a cardiologist and the director of the Heart Function Clinic at the University of Alberta, who studies the ACE2 signalling pathway. “ACE2 is a very protective molecule. That’s what makes this new coronavirus so deadly—because it evolved to bind to this molecule that you need to have a functioning heart, lungs, and other organs. What this virus does is get rid of ACE2 from where you need it.”

What’s important, explains Insel, is striking the right balance. “It’s kind of a yin-yang relationship,” he says. “Is there a sweet spot? That’s what we’re

hoping.”

That’s why researchers have now begun clinical trials to test whether widely prescribed blood pressure drugs, which either neutralize angiotensin II or halt its production altogether, might actually control and treat the disease caused by SARS-CoV-2. Insel’s colleague, Rohit Loomba, is currently enrolling patients in one such trial at UCSD. Many other drugs now in testing work by gunking up viral replication, like remdesivir and favipiravir. Other strategies involve blocking the virus from attaching to ACE2 in the first place, either with antibodies from survivors, artificial antibodies, or a vaccine. Blood pressure drugs wouldn’t target the virus at all. Rather, they’d try to correct a molecular imbalance made worse by the viral infection.

“We’re talking about understanding how the disease plays out. How does it progress at the level of tissues and cells?” asks Insel. “If we could stop that, then we could stop these more serious infections.”

It’ll be months before these clinical trials yield results. So while ACE2’s role in the start of an infection may be clear, there’s still a lot left to learn about how the molecule influences the course of the disease that follows. Still, that scientists know this much already is remarkable, says Peters, the UCSF pulmonologist. “We don’t really understand how viral receptor expression influences susceptibility to most diseases,” he says. The technology required, like being able to peer inside a single cell and see what proteins it’s making compared to its neighbors, has only evolved in the last few years. “We’re at the cusp of being able to do it,” he says. “I’d bet that we’ll get there for this disease probably within the next decade.”

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Megan Molteni is a staff writer at WIRED, covering biotechnology, public health, and genetic privacy. Previously, she freelanced as a reporter, audio producer, and fact-checker. Her work has appeared in Popular Science, Discover, Undark, Nautilus, and Aeon. She studied biology and ultimate frisbee at Carleton College and has a graduate...
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Exhibit 19

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Treatment with Hydroxychloroquine Cut Death Rate Significantly in COVID-19 Patients, Henry Ford Health System Study Shows

July 02, 2020

DETROIT – Treatment with hydroxychloroquine cut the death rate significantly in sick patients hospitalized with COVID-19 – and without heart-related side-effects, according to a new study published by Henry Ford Health System.

In a large-scale retrospective analysis of 2,541 patients hospitalized between March 10 and May 2, 2020 across the system's six hospitals, the study found 13% of those treated with hydroxychloroquine alone died compared to 26.4% not treated with hydroxychloroquine. None of the patients had documented serious heart abnormalities; however, patients were monitored for a heart condition routinely pointed to as a reason to avoid the drug as a treatment for COVID-19.

The study was published today in the International Journal of Infectious Diseases, the peer-reviewed, open-access online publication of the International Society of Infectious Diseases (ISID.org).

Patients treated with hydroxychloroquine at Henry Ford met specific protocol criteria as outlined by the hospital system's Division of Infectious Diseases. The vast majority received the drug soon after admission; 82% within 24 hours and 91% within 48 hours of admission. All patients in the study were 18 or over with a median age of 64 years; 51% were men and 56% African American.



Henry Ford Study Shows H



"The findings have been highly analyzed and peer-reviewed," said Dr. Marcus Zervos, division head of Infectious Disease for Henry Ford Health System, who co-authored the study with Henry Ford epidemiologist Samia Arshad. "We attribute our findings that differ from other studies to early treatment, and part of a combination of interventions that were done in supportive care of patients, including careful cardiac monitoring. Our dosing also differed from other studies not showing a benefit of the drug. And other studies are either not peer reviewed, have limited numbers of patients, different patient populations or other differences from our patients."

Zervos said the potential for a surge in the fall or sooner, and infections continuing worldwide, show an urgency to identifying inexpensive and effective therapies and preventions.

"We're glad to add to the scientific knowledge base on the role and how best to use therapies as we work around the world to provide insight," he said. "Considered in the context of current studies on the use of hydroxychloroquine for COVID-19, our results suggest that the drug may have an important role to play in reducing COVID-19 mortality."

The study also found those treated with azithromycin alone or a combination of hydroxychloroquine and azithromycin also fared slightly better than those not treated with the drugs, according to the Henry Ford data. The analysis found 22.4% of those treated only with azithromycin died, and 20.1% treated with a combination of azithromycin and hydroxychloroquine died, compared to 26.4% of patients dying who were not treated with either medication.

"Our analysis shows that using hydroxychloroquine helped saves lives," said neurosurgeon Dr. Steven Kalkanis, CEO, Henry Ford Medical Group and Senior Vice President and Chief Academic Officer of Henry Ford Health System. "As doctors and scientists, we look to the data for insight. And the data here is clear that there was benefit to using the drug as a treatment for sick, hospitalized patients."

Overall, hospital system patients in the study experienced an 18.1% in-hospital mortality rate. Regardless of treatment, mortality was highest in:

- Patients older than 65,
- Patients who identified as Caucasian,

- Patients admitted with reduced oxygen levels,
- Patients who required ICU admission.

Patients who died commonly had serious underlying diseases, including chronic kidney and lung disease, with 88% dying from respiratory failure. Globally, the overall mortality from SARS-COV-2 is estimated to be approximately 6% to 7%, with mortality in hospitalized patients ranging between 10% and 30%, according to the study. Mortality as high as 58% has been seen among patients requiring ICU care and mechanical ventilation.

According to the U.S. Centers for Disease Control & Prevention, hydroxychloroquine (also known as hydroxychloroquine sulfate) is a U.S. Food & Drug Administration (FDA)-approved arthritis medicine that also can be used to prevent or treat malaria. It is available in the United States by prescription only. The drug is sold under the brand name Plaquenil and it is also sold as a generic medicine. It is commonly used by patients with arthritis, lupus or other rheumatic conditions.

Dr. Zervos also pointed out, as does the paper, that the study results should be interpreted with some caution, should not be applied to patients treated outside of hospital settings and require further confirmation in prospective, randomized controlled trials that rigorously evaluate the safety and efficacy of hydroxychloroquine therapy for COVID-19.

"Currently, the drug should be used only in hospitalized patients with appropriate monitoring, and as part of study protocols, in accordance with all relevant federal regulations," Dr. Zervos said.

Henry Ford Health System, as one of the region's major academic medical centers with more than \$100 million in annual research funding, is involved in numerous COVID-19 trials with national and international partners.

Henry Ford Health System is currently also involved in a prophylactic hydroxychloroquine study: "Will Hydroxychloroquine Impede or Prevent COVID-19," or WHIP COVID-19. The study is a 3,000-person, randomized, double-blinded look at whether hydroxychloroquine prevents healthcare and frontline workers from contracting the COVID-19 virus. The WHIP COVID-19 team is working on expanding study sites while there is a lull in the number of COVID-19 cases in Southeast Michigan. This is in preparation for a potential increase of COVID-19 cases as Fall flu season approaches, with additional sites available for convenient enrollment of healthcare workers and first responders. The WHIP COVID-19 team is also taking this gift of time to reach out to other areas of the world that are seeing a blossoming of cases: Brazil and Argentina. There are currently 619 people enrolled in the study, out of a target of 3,000.

###

About Henry Ford Health System:

Under the leadership of President and CEO Wright L. Lassiter, III, Henry Ford Health System is a \$6.5 billion integrated health system comprised of six hospitals, a health plan, and 250+ sites including medical centers, walk-in and urgent care clinics, pharmacy, eye care facilities and other healthcare retail. Established in 1915 by auto industry pioneer Henry Ford, the health system now has 32,000 employees and remains home to the 1,900-member Henry Ford Medical Group, one of the nation's oldest physician groups. An additional 2,200 physicians are also affiliated with the health system through the Henry Ford Physician Network. An active participant in medical education and training, the health system has trained nearly 40% of physicians currently practicing in the state and also provides education and training for other health professionals including nurses, pharmacists, radiology and respiratory technicians.

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Exhibit 20

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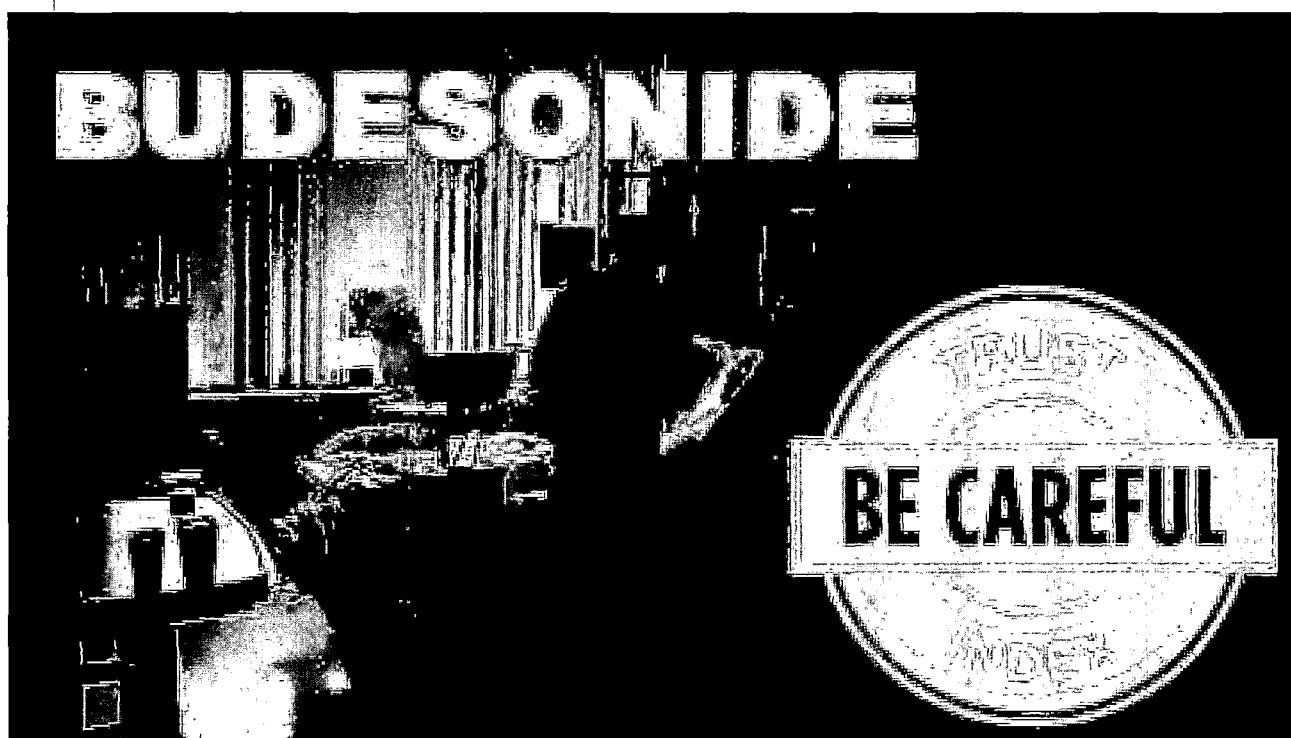
Is inhaled steroid budesonide really 'silver bullet' for COVID-19?

West Texas doctor, Richard Bartlett, claims he's found the best treatment for the new coronavirus

Julie Moreno, Executive Producer/Digital Content

Published: July 14, 2020, 6:02 am

Tags: [Ruth Berggren](#), [Truth Index](#), [Budesonide](#), [Coronavirus](#)



Budesonide has been touted as a "silver bullet" for treating COVID-19 by one West Texas doctor, but many other doctors say the drug needs to be studied before it's widely used. (KSAT)



SAN ANTONIO – A West Texas doctor is getting a lot of attention for his claims that the inhaled steroid budesonide is the "silver bullet" for **COVID-19**.

Dr. Richard Bartlett, a general physician who practices at various clinics in the Midland-Odessa area says he's had 100% success rate treating dozens of patients with the drug.

Clips from his media interviews have gone viral on social media and some have speculated that other doctors are overlooking a cure.

"It's like this medicine was made for this pandemic," Bartlett told **News West 9**.

We ran this claim through our Trust Index and determined people should be careful.



After reviewing this topic, we've found some issues - **Be Careful.**

What is the Trust Index?

KSAT asked Dr. Ruth Berggren, an infectious disease specialist at the UT Health San Antonio's Long School of Medicine about claims that budesonide is the key to curing coronavirus cases.

"So this is a premature declaration of a cure," Berggren said.

She said budesonide is a known medicine with important indications but says it should be studied before it's widely used.

"Let me tell you something that should cause everyone to press the pause button on this budesonide idea," Berggren said. "There's a signal that suggests that if you give steroids, immunosuppressive medications, early in the course of the disease when you need your immune system to be fighting off the virus, you could possibly make things worse."

Berggren said there was a large randomized trial of another steroid called dexamethasone in the United Kingdom which found that treating patients who had oxygen deficits orally or intravenously with the drug did reduce mortality, but the drug increased the death rate in patients who did not have oxygen deficits.

She said we won't know if the same holds true for budesonide until it's studied properly.

"I absolutely think that inhaled steroids need to be studied, and they need to be studied in a prospective randomized blinded fashion so that we can all learn whether they help and then how to use them safely and wisely," Berggren said.

She warned against off-label use or hoarding of the drug.

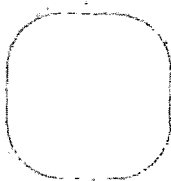
"There's even a possibility that if you use these steroids too early or too much of them, that you could harm yourself and worsen your chances of surviving COVID-19," Berggren said.

Berggren isn't the only doctor expressing concern over Bartlett's claims.

Dr. Rohith Saravanan, the Chief Medical Officer at Odessa Regional Medical Center, **told CBS 7**, "As of right now, there is no widespread use of budesonide, and that's not what the NIH recommends."

"I just want to caution everybody to be careful," Dr. Larry Wilson, CMO at Midland Memorial Hospital, told CBS 7. "If it's being described as a silver bullet, if you're hearing about things that are just so perfect that it's too good to be true, it probably is."

Watch Dr. Berggren's interview with KSAT from July 10 below:



More Trust Index Stories:

Do certain blood types make you more susceptible to COVID-19?

No, entire households are not included in COVID-19 count in San Antonio

Trust Index: Can hydrogen peroxide be used as a disinfectant to kill COVID-19?

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ABOUT THE AUTHOR:




Julie Moreno

Julie Moreno has worked in local television news for more than 20 years. She came to KSAT as a news producer in 2000. After producing thousands of newscasts, she transitioned to the digital team in 2015. She writes on a wide variety of topics from breaking news to trending stories and manages KSAT's daily digital content strategy.

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GT

GTechnicalstudent 8 hours ago

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A formalized peer-reviewed study is the only way to identify effective treatments and vaccines. San Antonio's University Health System is conducting the world's largest remdesivir study at dozens of sites throughout the US and the world, including Brooke Army Medical Center. The first phase of the trial showed improved recovery time and reduced mortality in hospitalized patients with COVID-19 infection. For the study hospitalized population, it reduced hospitalization time from 15 to 11 days ...

[» more](#)

1 0 ...

RI

Rich 16 hours ago

[follow](#)

I do appreciate that anecdotal evidence (Richard Bartlett) was the only means available that surgeons could rely on the battlefield to save lives. However, there is no way that the approval of a drug can be given without rigorous testing which is impossible during a war.

I would think that anyone who already has a compromised immune system would not be a likely candidate for the drug, e.g., cancer patients receiving immune suppressant treatments.

3 0 ...

WS

warren sands 19 hours ago

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This is a quote from a Mayo Clinic study, not associated with covid-19.

"Corticosteroids also suppress your immune system, which can help control conditions in which your immune system mistakenly attacks its own tissues." The

exact concern stated by other medical professionals. There could very well be a reason for caution in treating a covid-19 patient in this manner to early in the treatment process while the bodies natural immune system is trying to respond to the invading virus. Treating ... » more

^ 3 v 0 ↩ ...

CV

CV ⌚ 20 hours ago

follow

This protocol works. Every time a doctor who is not in bed with the NIH/CDC suggests a treatment protocol that has met with success (as in this case), he/she gets shot down. There are many interests at stake here and the patient is not at the center. Dr Bartlett is a prestigious doctor and what he is offering up is a solid approach. There have been 7 deaths in a country of 25 Mil (Taiwan) and less than 1K deaths in Japan. The masses are not stupid, regardless of what the media may want us ... » more

^ 1 v 2 ↩ ...

RV

Registered Voter ⌚ 1 day ago

follow

Yay! Excellent to hear! It is time to use this steroid budesonide in a nebulizer treatment machine(which has been used for over 20 years with no Cardiac risk) along with other antibiotics that have been a successful answer and treatment for all of Dr. Richard Bartlett's COVID 19 patients. He's been practicing medicine for Nov)er 20 years. Go to the John Hopkins website that shows other countries like Singapore, Taiwan using these inhaled steroids with great success and very low deaths. Media ... » more

^ 2 v 2 ↩ ...

TI

Tillie ⌚ 2 hours ago

follow

Reply to @Registered Voter: The plural of anecdote is not evidence. These are not actual studies with a set of study rules as to who qualifies for treatments and who does not. What are the average ages of the pts who receive treat and a control group that does not exist. Who is peer reviewing

the results? This is how the French study that touted Hydroxychloroquine as a cure when there was a large discrepancy in the average age between the treatment group and the control groups. That pitiful ... » more

^ 0 v 0 ↩ ...



R U SURE? ⌚ 1 day ago

follow

lol "Trust index" made up by the very people trying to deceive you. What a joke.
"trust me this is true, because i put a stamp on it"

^ 7 v 4 ↩ ...

CC

c ⌚ 1 day ago

follow

Budesonide is an inhaled corticosteroid not an oral immunosuppressive steroid. It is used for mild - severe asthmatics, as a maintenance therapy. Perhaps using albuterol as a rescue medication for onset CoV19 symptoms such as of cough or shortness of breath might be investigated as well. Treat these patients at onset of symptoms as oppose to waiting until they come to the ER with Hypoxia and pneumonia. The research on Budesonide has not been peer reviewed, therefore "not valid."

^ 6 v 2 ↩ ...

CO

ConcernedCitizen ⌚ 1 day ago

follow

Hmmm "Trust Index"? Hey KSAT12 your bias is showing yoh might wanna tuck that back in! Isn't it interesting that this licensed medical professional's results based factual experience is being diminished, simultaneous to big Pharma's endorsed "Fast tracking" race to produce a vaccine????Are y'all AWAKE YET?

^ 4 v 6 ↩ ...

Tillie ✎ updated 1 hour ago

TI Reply to @ConcernedCitizen: Those supposed cured patients are called an anecdote not evidence. At least the vaccination attempts are being studied with a set of parameters that are accepted by the FDA and the reputable parts of the scientific community which is more than can be said about this doctors supposed results that can not be verified. Just another story of this or that working 100% to cure an illness. There are accepted rules as to how vaccine and drug trials are preformed. This is just ... » more

^ 0 v 0 ↩ ...

OL

Only logical ⌚ 1 day ago

follow

Doctors like this who publicly make claims of a "silver bullet" during a pandemic without a spec of proper research and study to back it up, need to have their medical license pulled. They are a danger.

^ 4 v 8 ↩ ...

SHOW 8 OLDER REPLIES

BA

Batmanred ⌚ 20 hours ago

follow

Reply to @Only logical: no he had his daily dose of clorox chewables

^ 2 v 0 ↩ ...

TI

Tillie ⌚ 1 hour ago

follow

Reply to @John B: The pleural of anecdote os not evidence.

^ 0 v 0 ↩ ...

CH

Chelsea ⌚ 1 day ago

follow

Let's get that research going!:)

^ 8 v 2 ↩ ...

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Exhibit 21

Case Study Report

SARS-CoV-2 and The Case for Empirical Treatment

Authors – Richard P. Bartlett, MD and Alexandria Watkins, DNP

Richard P. Bartlett, MD and Alexandria Watkins, DNP

SUMMARY

As of June 17, 2020, Google Trends reports that the topics "steroids and coronavirus" have increased +4,750%.¹² This is an outpatient case study that examines two patients in the United States with unique cases that involve oncology and Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), also known as COVID-19. This case study aims to reveal the identification process, diagnosis, clinical course, and management of such a distinctive case - including the patient's prodromal phase and subsequent progression of the disease in an outpatient setting utilizing telemedicine. The goal is to call attention to the success of proactive, early empirical treatment, combining a classic corticosteroid (budesonide) administered via a nebulizer and an oral macrolide antibiotic known as clarithromycin (Biaxin).

INTRODUCTION

A classic drug and a novel case, it is a story out of a Disney playbook - *Beauty and The Beast*.⁴¹ A beauty named budesonide and a beast named SARS-CoV-2. Budesonide, a drug initially patented in 1973 and on the World Health Organization's (WHO) List of Essential Medicines, and SARS-CoV-2 first presenting itself in the United States on January 20, 2020.^{8 & 46} This is a case study that demonstrates the effectiveness of treating a respiratory disease with a pinpoint focused nebulized therapy versus systemic therapy. One can go as far back as ~1554 BC and find that even the ancient Egyptians had an appreciation for the therapeutic effects of sequestered aerosol inhalation.³⁸ The aim of pinpoint focused treatment is to find specific targets and treat effectively with minimal side effects. 'Work smarter, not harder' is an underlying theme with early, pinpoint focused empirical treatment.

Like asthma, SARS-CoV-2 is a form of a respiratory inflammatory disease that is more severe and acts on the angiotensin-converting enzyme (ACE) receptors of the lungs. SARS-CoV-2 presents as a local vascular problem due to the activation of B1 receptors on endothelial cells within the lungs - B1 receptors increase the response to proinflammatory cytokines. This activation takes place when the angiotensin-converting enzyme 2 (ACE2) acts as a receptor, permitting the spike protein of SARS-CoV-2 to bind to host cells. When ACE2 is interrupted, and the ligands of B1 are active, the lung environment is predisposed to vascular leakage and angioedema – rapid swelling in the mucosa. The primed spike protein is also allowed viral entry and spread by the transmembrane protease, serine 2 (TMPRSS2).^{24, 34 & 43} Multiple studies agree with our discovery that inhaled corticosteroids (ICS) via nebulizer permit for localized down-regulation of proinflammatory cytokine synthesis and decreased expression of ACE2 (receptor of SARS-CoV-2) and TMPRSS2, thus reducing mortality.^{15, 23, 24, 28, 34 & 49} For this reason, this case study postulates that focused treatment with nebulized budesonide has clinical significance over systemic corticosteroids and does not increase the risk of infection with SARS-CoV-2.^{2, 24 & 30} This case study supports early empirical treatment in symptomatic patients.

METHODS

Study Population, Setting, and Data Collection

This case study involves two patients in the outpatient setting - treated via telemedicine, with laboratory-confirmed SARS-CoV-2 infection in the West Texas region between

Richard P. Bartlett, MD and Alexandria Watkins, DNP

March 29th, 2020, and May 14th, 2020. The cases presented are confirmed SARS-CoV-2 positive cases as defined by a positive result on a reverse-transcriptase-polymerase-chain-reaction (RT-PCR) assay of a specimen collected on a nasopharyngeal swab. The two identified adults were identified and managed through telemedicine by a primary care provider in an outpatient family medicine practice. Informed consent for medical records release was obtained through password-protected emails, and patients were interviewed by phone.

CASE REPORT

The first patient is a 63-year-old female, non-smoker, who is diagnosed with Waldenstrom's Macroglobulinemia (2012) and Primary Cutaneous Marginal Zone Lymphoma (2020) and currently being treated with ibrutinib (Imbruvica). The patient also has a history of hypertension and hypothyroidism; treatment for these comorbidities includes losartan potassium 50mg tab once-daily, and levothyroxine 50mcg tab once-daily respectively. The patient reports complete isolation until May 7th, 2020, when her family visited, this is the initial exposure date. On May 10th, 2020, the patient became symptomatic with sinus cavity pressure, fever, aches, and chills. In the early morning hours of May 11th, the patient had multiple episodes of nausea and vomiting and, by that evening, had fever greater than 100.4°F, constant chills, unproductive cough, decreased appetite related to change in taste and smell. The patient remained symptomatic and continued to self-isolate until May 15th, she received news that she had been exposed to a family member on May 7th, that tested positive for SARS-CoV-2. Upon hearing the report, the patient reached out via telemedicine to an outpatient family medicine doctor. The patient was tested for SARS-CoV-2 via nasopharyngeal swab using a reverse-transcriptase-polymerase-chain-reaction (RT-PCR) assay. At this time (May 15th, 2020), the patient was empirically started on budesonide 0.5mg nebulizer twice daily, clarithromycin (Biaxin) 500mg tab twice daily for ten days, Zinc 50mg tab twice daily, and aspirin 81mg tab daily. The patient reported for the next two-days, symptoms improved once nebulized budesonide had been administered. By May 19th, the patient developed a productive cough, pleuritic pain, and diarrhea. On May 20th, the patient's RT-PCR assay for SARS-CoV-2 was confirmed positive, ten days after initial symptoms. A telemedicine consult was performed the same day (May 20th), and budesonide administration was increased from twice daily to three times daily. The patient reports that on May 24th, symptoms started to improve, and on May 25th, the patient completed the clarithromycin (Biaxin) prescription and notes that this was the first day of no fevers. As the patient continued to remain symptom-free, a second RT-PCR assay was ordered via telemedicine on May 29th, and on June 2nd, the patient was still positive for SARS-CoV-2; this is 24-days from initial symptoms. On June 8th, the patient had been symptom-free for 14-days, a third RT-PCR assay was ordered via telemedicine, and on June 10th, the patient received their first negative result for SARS-CoV-2. A fourth RT-PCR assay was ordered on June 11th, via telemedicine, and on June 17th, the patient received a second negative result. The patient has remained symptom-free, and as of June 11th, has no longer needed nebulized budesonide therapy.

Richard P. Bartlett, MD and Alexandria Watkins, DNP

Assumed Initial Exposure Date: May 7, 2020	
Empirical Treatment Start Date: May 15, 2020	
Test Date:	Result and Date Received:
May 15, 2020	Positive – May 20, 2020
May 29, 2020	Positive – June 2, 2020
June 8, 2020	Negative – June 10, 2020
June 11, 2020	Negative – June 17, 2020

The second patient is a 38-year-old male, non-smoker, who has the following comorbidities: Type II Diabetes Mellitus (DM), hypertension, and gout. The patient takes Metformin 1,000mg tab, twice daily and Pioglitazone 15mg tab, daily for Type II DM, Lisinopril 2.5mg tab, daily for hypertension, and Probenecid 500mg tab, daily for gout. The patient believes initial exposure was in Frisco, TX, on March 7th, 2020, while shopping at a shopping center. On March 29th, 2020, the patient became symptomatic with cough, sore throat, loss of smell and taste, fever ($>100.4^{\circ}\text{F}$), aches, and chills. March 29th, the patient was tested for Influenza using the rapid influenza diagnostic test (RIDT), the test was negative, and the patient was discharged home. At this time, the patient accessed his primary care doctor via telemedicine, he was treated empirically and started on budesonide 0.5mg nebulizer twice daily, clarithromycin (Biaxin) 500mg tab twice daily for 10 days, Zinc 50mg tab twice daily, and aspirin 81mg tab daily. April 1st, 2020 (three days after onset of symptoms), the patient was able to undergo SARS-CoV-2 testing, he was tested by nasopharyngeal swab using an RT-PCR assay. On April 3rd, the patient was informed that he had tested positive for SARS-CoV-2, six days after initial symptoms had ensued. The patient reports that he was symptom-free April 4th, and completed his full round of clarithromycin (Biaxin) on April 7th. The patient continued budesonide 0.5mg nebulizer twice daily, Zinc 50mg tab twice daily, and aspirin 81mg tab daily. As the patient continued to remain symptom-free, a second RT-PCR assay via nasopharyngeal swab was ordered via telemedicine on April 15th ending with a positive result for SARS-CoV-2. At this time azithromycin 500mg tab on day one, then 250mg tab, daily for four-days was started. On April 27th, the patient was re-tested via RT-PCR assay and again tested positive. It was not until May 1st that the patient tested negative per the nasopharyngeal swab RT-PCR assay. On May 7th, the patient was tested with another RT-PCR assay by nasopharyngeal swab to confirm the negative test result but tested positive for SARS-CoV-2. The patient had no new exposure and been self-quarantined since April 1st. The patient was re-screened again by nasopharyngeal swab using RT-PCR May 11th and tested negative for SARS-CoV-2. The patient completed a total of four rounds of Azithromycin 500mg tab on day one, then 250mg tab, daily for four-days, and stopped budesonide 0.5mg nebulizer twice daily, May 13th. He continued Zinc 50mg tab twice daily, and the aspirin 81mg tab daily, until a second consecutive negative was obtained. On May 14th, the last test that was performed on the patient was the nasopharyngeal swab using an RT-PCR assay and again confirmed a negative result.

Assumed Initial Exposure Date: March 7, 2020
Empirical Treatment Start Date:

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March 29, 2020	
Test Date:	Result and Date Received:
April 1, 2020	Positive – April 3, 2020
April 15, 2020	Positive – April 19, 2020
April 27, 2020	Positive – April 27, 2020
May 1, 2020	Negative – May 3, 2020
May 7, 2020	Positive – May 10, 2020
May 11, 2020	Negative – May 13, 2020
May 14, 2020	Negative – May 15, 2020

DISCUSSION

Budesonide

Since the outbreak of the novel SARS-CoV-2 infection, there have been inconsistencies in the information that has been disseminated regarding the potentially deleterious effect of treating patients with corticosteroids, nonsteroidal anti-inflammatory drugs (NSAIDs), and non-NSAIDs. Nonsteroidal anti-inflammatory drugs induce their intrinsic inhibitory functions on the cyclooxygenase enzymes (COX-1/COX-2). These enzymes are involved in the synthesis of crucial biological mediators - mediators that regulate inflammation. Corticosteroids, such as budesonide, participate in several basic physiological processes such as aiding in immune system response and inflammatory regulation. Budesonide destabilizes the messenger RNA (mRNA) of the inflammatory gene, COX-2, by blocking the protein synthesis, thus suppressing the transfer of genetic information that allows for inflammation to take place.⁵

Corticosteroid pretreatment abates cytokine stimulation significantly by reducing both inflammatory mediators' cytosolic phospholipase A2 (cPLA2) and COX-2 mRNA status as well as prostaglandin (PGE) release. The physiological effect of budesonide in reducing PGE production occurs primarily at the mRNA level by preventing the launch of cPLA2 and particularly COX-2.²⁹ Using nebulized budesonide early on in the treatment plan of symptomatic SARS-CoV-2 patients is valuable when trying to avoid an overreaction of the immune system causing a 'cytokine storm' – a response that wreaks havoc on healthy cells rather than incapacitating the virus.

Budesonide represents the first example of a drug able to inhibit the production of proinflammatory cytokines/chemokines like IL-6, IL-8, and TNF- α from human lung macrophages activated by secretory phospholipids A2 (sPLA2).⁴⁰ Corticosteroids like budesonide were universally used during the SARS-CoV outbreak because of their recognized ability to regulate a variety of involved cytokines (including IL-1, IL-3, IL-4, IL-5, IL-6, IL-8, IL-11 IL-12, IL-17A GM-CSF, and TNF- α).^{11, 23, 33, 36 & 50} Research shows that early intervention with ICS like budesonide decreases the need for systemic corticosteroid use. Inhaled corticosteroids modestly improve airflow function.^{32 & 51}

According to Russell et al., there is no "definitive evidence" that establishes a stance on the use of NSAIDs for the treatment of SARS-CoV-2. Still, there is evidence that corticosteroids can produce favorable results in the treatment of SARS-CoV.³⁶ Oncology patients who are immunocompromised benefit from prescribed low-dose corticosteroids.^{9 & 36} There is also a decreased risk of pneumonia in COPD patients who

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use nebulized budesonide.¹⁶ In contrast, when systemic corticosteroids were used in SARS-CoV-2 hospital patients there was no evidence of shortened pneumonia duration, decrease in days stayed in the hospital, or reduced risk of mortality.⁴⁸ This case study has affirmed that an empirical treatment protocol with nebulized budesonide and the efficacy of treating symptomatic patients earlier rather than later has significant implications. Halpin et al. is in agreeance with early management and encourages increased dosing with ICS for SARS-CoV-2 patients.¹⁷ The treatment plan has evolved and become more effective by increasing the dosage and frequency of nebulized budesonide.

Budesonide has proven to be useful in the prevention of asthma (an inflammatory disease in the lungs), and when regularly used, budesonide has shown to decrease the severity and number of asthma attacks. SARS-CoV-2 is a much more severe form of inflammatory disease in the lungs with the primary source of infection at the ACE receptors in the lungs. It is important to note that for asthmatics who are having an acute inflammatory response and people with late symptoms of SARS-CoV-2, budesonide is ineffective. Hence, routine daily treatment of budesonide ICS for asthmatics and early empirical nebulized treatment is critical for SARS-CoV-2 patients. The use of inhaled budesonide has also been shown to be beneficial in the airway epithelial cells by inhibiting the virus-induced cytokines, thymic stromal lymphopoietin (TSLP), and chemokine ligand 26 (CCL26).¹⁸ The inhibition of these cytokines indicates that inhalation of budesonide via nebulizer after SARS-CoV-2 contagion has favorable effects.

Another advantage to nebulized budesonide is that the systemic half-life (the time it takes a drug to decrease to half its initial dose) is much shorter than that of fluticasone propionate. It is understood that budesonide has low lipophilicity relative to other corticosteroids and has a more preferential reversible esterification process, thus extending the exposure in the lungs.¹⁰ It is because of this knowledge and the lung's preference for inhaled budesonide; SARS-CoV-2 patients have been empirically treated with nebulized budesonide.

Nebulizer and Concerns of SARS-CoV-2 Transmission

Nebulizers are very effective at treating breathing disorders like SARS-CoV-2, but concerns of spreading particles in size up to 5 μm via aerosol cause concern for providers when considering what route to order for respiratory medications. This case study is focused on treatment in the outpatient setting, and therefore, there are different considerations when examining the efficacy of nebulized therapy. Small-Volume Nebulizers (SVNs) offer several advantages for drug delivery: nebulization delivers higher targeted drug concentrations in the airways achieving rapid onset of action, nebulized corticosteroids can be dosed at considerably lower doses than oral or intravenous alternatives, and there is minimal systemic absorption with nebulized corticosteroids hence, fewer adverse effects.^{7 & 14} In 2004, a study evaluated the distribution of airborne SARS-CoV in hospital patients who were being treated with a combination of humidified oxygen therapy and nebulizers. The study observed that zero percent of the offending pathogen in the air and environmental samples after a PCR amplification was performed in isolated rooms.⁴³ This study does not coincide with the consensus that using a nebulizer might be a transmitting source for SARS. Deslée et al.

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and the French Language Respiratory Society note that there is no evidence to support avoiding using ICS (nebulized budesonide) during the SARS-CoV-2 pandemic.¹³ The American College of Allergy, Asthma, and Immunology and Dr. Xi of Keck Medicine of USC suggests that nebulized medications should be administered in a room of the patient's house that is isolated from other household members to minimize exposure.^{1 & 46} The goal is to use a nebulizer in a part of the house where there is no recirculated air or in areas with low foot traffic. It is suggested that patients use nebulizers in an area where it is easy to clean the surfaces, such as a private bathroom or an area that needs no cleaning at all—for instance, the garage or outside on the patio if practical. When cleaning a surface after a nebulization treatment, one can use a disinfectant wipe or a water-absorbent paper towel. It has been shown that more than 95% of the residue left on a surface after a nebulization treatment can be removed with regular water-absorbent tissue paper.²² For the remaining percentage left on the service, it is not guaranteed that infection will follow if the residue reaches another susceptible individual.³⁹ Collaboration between the healthcare provider and patient, along with continued patient education is vital when prescribing nebulized medication in cases with high contagion risk.

There has to be a big push for educating the patient and all parties involved in the patient's care on appropriate device cleaning and aerosol therapy infection control. According to O'Malley³¹, the recommended steps for nebulizer cleaning and disinfecting in the home include:

- 1) Nebulizer parts cleaned with dish detergent and water
 - 2) Disinfect (per manufacturer approval and patient approval)
 - a) Cold techniques:
 - i) Soak for five minutes in 70% isopropyl alcohol
 - ii) Soak for 30 minutes in 3% hydrogen peroxide
 - b) Heat techniques:
 - i) Microwave or Boil for five minutes
 - ii) If patient has a dishwasher that can achieve a temperature of > 158°F or 70°C, it is okay to wash in a dishwasher for 30 minutes
 - iii) Electric steam sterilizer
 - 3) The patient will need to rinse with sterile water if using the cold disinfectant technique
 - 4) Air-dry before storing equipment
- As always, reinforcing good hand hygiene before and after nebulized therapy is crucial when being proactive in stopping the spread of SARS-CoV-2.

Supportive Therapy

Clarithromycin

Biaxin, also known as clarithromycin, is a macrolide that is metabolized in the liver and primarily excreted in the urine. Biaxin inhibits the growth of atypical pathogens and is commonly prescribed to treat bacterial infections and community-acquired pneumonia (affects the lower respiratory tract). The protocol calls for Biaxin to treat atypical pneumonia prophylactically – pneumonia is a known complication of SARS-CoV-2. When patients with SARS-CoV-2 exchange oxygen (take a breath), they allow the

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insulting agent to crossover into the bloodstream, thus introducing the alveoli (small air sacs in the lungs) and surrounding tissue to SARS-CoV-2. This exchange, along with inflammation, causes an accumulation of dead cells and fluid, thus leading to pneumonia.

Aspirin

Early aspirin use curtails the incidence of cardiovascular complications, mitigates prothrombotic states, reduces the extent of SARS-CoV-2 in severe and critical patients, and will conceivably shorten days in the hospital.^{26 & 35} Prophylactic use of aspirin in SARS-CoV-2 patients has the potential to inhibit viral replication, anti-inflammatory, and anti-lung injuries, as well as anti-platelet aggregation.

Zinc

Zinc administration prophylactically restores depleted immune cell function and has the potential to enhance antiviral immunity. Zinc diminishes the RNA-synthesizing activity of SARS-CoV-2.^{21 & 37} Zinc protects the cell membrane, which in return, assists in blocking viral entry into the cell and is an essential component; zinc is a naturally occurring mineral.

False-Negative Covid-19 Test and Empirical Treatment

In healthcare, tests are used to guide our decision making not be our only decision-making tool. It is imperative to note that the “art of medicine” requires us to ‘treat the patient, not the test.’ New studies show that if SARS-CoV-2 PCR testing takes place within the first five days post-exposure, the patient has a greater than 65 percent chance of receiving a false-negative result, and the average patient that was symptomatic within the first five days of exposure had a false-negative rate of almost 40 percent.^{19, 20 & 42} The consequences of not treating someone who truly has SARS-CoV-2 because they test negative instead of positive can be detrimental to the patient and society as a whole.

Real-Time Reverse-Transcriptase Polymerase Chain Reaction (RT-PCR) test had the best performance eight days after contagion (on average, the patient was symptomatic on day three), but our best still had a false-negative rate of 20 percent – this equates into one in five people with false-negative test results.^{19, 20 & 42} High-risk exposure patients and patients who are immunocompromised should be cared for as if they have SARS-CoV-2 until proven otherwise when symptoms are consistent with SARS-CoV-2. In case one and case two had early empirical treatment not been started, the patient would have lost five days and six days of therapy, respectively; thus, diminishing chances of survival. In case two had the patient stopped his treatment on May 3rd instead of May 15th because of a “potential false-negative,” he would have missed 12 days of treatment, potentially exposing him to disease proliferation.

CONCLUSIONS

It should be mentioned that telemedicine has been put to the test during these trying times. The success of these two cases and the safety permitted by monitoring remotely and providing real-time consultations by phone could not have been achieved without

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the integration of telemedicine. This experience has enabled us to witness the advancement of technology in medicine personally.

Inhaled corticosteroids are a powerful tool. The evidence is currently under review in regards to the precision and power that inhaled corticosteroids possess; these studies are being performed by France⁴, Spain⁴⁴, Sweden⁶ the University of Oxford³, and the National Institutes of Health (NIH)²⁷. It is our understanding that there is more than one way to treat SARS-CoV-2, but it is with great respect to the studies that have come before and will come after ours that these case studies and the treatments provided be considered in the arsenal of powerful therapies to be used when treating SARS-CoV-2. A call to arms was sounded on January 20, 2020, when the first case of SARS-CoV-2 was first identified in the United States and in March 2020 a successful empirical treatment plan was put into place (budesonide 0.5mg nebulizer, twice daily, clarithromycin (Biaxin) 500mg tab, twice daily for ten days, Zinc 50mg tab, twice daily, and aspirin 81mg tab, daily).

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Richard P. Bartlett, MD and Alexandria Watkins, DNP

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UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS

STATE OF TEXAS et al. ,
Plaintiff,

v.

UNITED STATES OF AMERICA et al.,
Defendant.

Civil Action No. 18-cv-068 (ASH)

AFFIRMATION IN SUPPORT OF MOTION TO INTERVENE UNDER FRcvP RULE

24 BY THE TRUSTEES OF THE AD HOC NEW YORKER REPUBLICAN

COMMITTEE

Exhibit 7

Ad Hoc New Yorker Republican Committee

Trustee Christopher Earl Strunk
141 Harris Avenue
Lake Luzerne, New York 12846-1721
518-416-8743 Email: strunk@leader.com

John M. Domurad, Clerk of the UNITED STATES Court
for the Northern District Court Of New York
U.S. Courthouse and Federal Building
445 Broadway, the Clerk's Office Room 509
Albany, NY 12207-2936

Re: REV. STEVEN SOOS et al., V ANDREW M. CUOMO et al., 20-cv-651 (GLS/DJS)

Subject: MOTION TO RECONSIDER THE DENIAL OF INDIVIDUAL
PETITIONER AND AD HOC NEW YORKER REPUBLICAN COMMITTEE
INTERVENTION TO ENLARGE THE PRELIMINARY INJUNCTION TO
RESOLVE DEFENDANTS' DEVICES FOR SOCIAL SCORING, TORTUOUS
ELECTION INTERFERENCE AND NANO-TECH SYSTEMS FOR
UNCONSTITUTIONAL SURVEILLANCE with Exhibit 22

The Honorable Clerk of the Court,

Pursuant to the Denial of Intervention Text Order of July 21, 2020 at Docket entry 42
attached is the single sided Notice of Motion to Reconsider Denial of Intervention with
Support Declaration and Exhibit 22, having been duly served by regular mail upon
counsels for Defendants, Plaintiffs and NDNY US Attorney; and

Christopher Earl Strunk Trustee for Ad Hoc New Yorker Republican Committee declare,
certify, verify, and state under penalty of perjury that the foregoing is true and correct with
28 USC §1746.

Sincerely,

Ad Hoc New Yorker Republican Committee

Dated: July ²³, 2020

Lake Luzerne, New York



Christopher Earl Strunk in esse Sui Juris
Trustee for the Ad Hoc New Yorker Republican Committee
All Rights Reserved Without Prejudice

Attached: Original Document secured by spring clip and Certificate of Service

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,

Plaintiffs,

v.

ANDREW M. CUOMO et al.,

Defendants.

20-cv-651 (GLS/DJS)

NOTICE OF MOTION TO RECONSIDER DENIAL OF INTERVENTION

PLEASE TAKE NOTICE that upon the accompanying support declaration of Proposed Plaintiff Intervener, Christopher Earl Strunk in esse sui juris in propria persona Trustee for the Ad Hoc New Yorker Republican Committee dated July 23, 2020, the SUPPORT FOR MOTION TO RECONSIDER THE DENIAL OF INDIVIDUAL PETITIONER AND AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS' DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE; and upon all prior pleadings and proceedings heretofore had herein, Plaintiff will make a motion for expanding restraint relief to ban masks for healthy persons in assembly at the United States District Court, Northern District of New York, U.S. Courthouse Federal Building 445 Broadway Albany New York on July 31, 2020, at 10:00 a.m., or as soon thereafter as counsel can be heard, for an Order, pursuant to Federal Rules of Civil Procedure, for reconsideration of denial of intervention and for such other and further relief as may be just and proper.

Dated: July 23, 2020

Lake Luzerne, New York



Christopher Earl Strunk in esse Sui Juris in propria persona
Trustee for the Ad Hoc New Yorker Republican Committee

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141 Harris Avenue

Lake Luzerne, New York 12846-1721

518-416-8743 Email: strunk@leader.com

For Service upon Plaintiffs and Defendants Counsels:

For Service upon Plaintiffs and Defendants Counsels:

CHRISTOPHER A. FERRARA, ESQ.
148-29 Cross Island Parkway,
Whitestone, NY 11357

MICHAEL McHALE, ESQ
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The Honorable Grant C. Jaquith
the United States Attorney for the Northern District of New York
U.S. Attorney's Office
445 Broadway, Room 218
Albany, NY 12207-2924

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,

20-cv-651 (GLS/DJS)

Plaintiffs,

v.

ANDREW M. CUOMO et al.,

Defendants.

CERTIFICATE OF SERVICE BY U.S. MAIL

The Trustee of the Ad Hoc New Yorker Republican Committee HEREBY CERTIFIES that on this 23rd day July, 2020, caused a true and correct copy of The Notice of Motion with SUPPORT FOR MOTION TO RECONSIDER THE DENIAL OF INDIVIDUAL PETITIONER AND AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS' DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE with Exhibit 22 to be served upon Parties' Counsels by first class United States Postal Service mail postage prepaid and by complimentary email marked for delivery to:

CHRISTOPHER A. FERRARA, ESQ.
148-29 Cross Island Parkway,
Whitestone, NY 11357

MICHAEL McHALE, ESQ
10506 Burt Circle, Ste 110
Omaha, NE 68114

Adrienne J. Kerwin
Office of Attorney General - Albany
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New York City Law Department
100 Church Street
Room 5-179
New York, NY 10007

Hilary M. Meltzer
New York City Law Department
Environmental Law Division
100 Church Street
New York, NY 10007

The Honorable Grant C. Jaquith
the United States Attorney for the Northern
District of New York
U.S. Attorney's Office
445 Broadway, Room 218
Albany, NY 12207-2924

Christopher Earl Strunk Trustee for the Ad Hoc New Yorker Republican Committee declare, certify, verify, and state under penalty of perjury that the foregoing is true and correct with 28 USC §1746.

Dated: July 23, 2020

Lake Luzerne, New York



Christopher Earl Strunk in esse Sui Juris in propria persona
Trustee for the Ad Hoc New Yorker Republican Committee

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,
Plaintiffs,

20-cv-651 (GLS/DJS)

v.

ANDREW M. CUOMO et al.,
Defendants.

SUPPORT FOR MOTION TO RECONSIDER THE DENIAL OF INDIVIDUAL
PETITIONER AND AD HOC NEW YORKER REPUBLICAN COMMITTEE
INTERVENTION TO ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE
DEFENDANTS' DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION
INTERFERENCE AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL
SURVEILLANCE

1. This is the Motion to Reconsider the Court's denial of Proposed Plaintiff Intervener, Christopher Earl Strunk in esse sui juris in propria persona, with STRUNK Petition for the Ad Hoc New Yorker Republican Committee Trustee Member Intervention under FRCvP 24, lodged at Docket 41 on 20 July 2020, and
2. That accordingly at Docket 42 on 21 July 2020 Strunk Trustee Petition was denied by the Court for:
3. FRCvP 24 (a) intervention as of right the Court alleging no common claim and injury regarding being able to assemble for religious practice; and
4. Despite the fact that the Memorandum-Decision Order left unresolved requirement to wear a mask as a healthy person, is unconstitutionally the outrageous quarantine of a healthy person so ordered as an unreasonable badge of compliance submission or suffer under the executive order by Defendants; and

5. In memory of Rabbi Harold Finkelstein Swiss, a popular public speaker of religious subjects and the meaning of Judaism in a secular world, who celebrated his 27th year at the Little Synagogue in the Basement meeting room of Gustavus Adolphus Lutheran Church at 155 E 22nd St, New York, NY 10010 in 2004, wrote over 2,000 sermons, 30 monologues and 13 plays, as well as four books: Scatter the Seed, Pale Flower, The Philosopher, and Out of Eldridge Street, series of autobiographical works; and
6. Strunk Trustee became a Caucasian Jew with Type A blood; and despite Strunk Trustee is part of the most vulnerable New Yorker group to the CORONAVIRUS / COVID-19 infection that is transmitted only by symptomatic viremia positive persons when the actual body temperature exceeds 100°F, for safety over 99°F should not be admitted to Schul and or Church - is an ill person who must be sent home not allowed in to Schul and or Church with a mask; and
7. The bottom line while news that the normal body temperature may be drifting down over time is intriguing, it is not cause for alarm — and it doesn't mean the definition of fever should change. But it's probably time to abandon the assumption that 98.6° is a normal temperature. Something closer to 97.5° may be more accurate according to the Harvard Medical School Article⁽¹⁾ see Exhibit 22; and

¹ MARCH 17,2020, 11:17 AM by Dr. Robert H. Shmerling, MD Senior Faculty Editor, Harvard Health Publishing of HARVARD MEDICAL SCHOOL Title: Time to redefine normal body temperature? Asks the question: Normal body temperature is 98.6° F, right?

But more modern studies have called this time-honored truth into question, and have found that

- Body temperature varies over the course of the day. It tends to be higher later in the day.
- It also varies among individuals. Women tend to have higher body temperature than men, and younger people tend to have higher temperatures than older folks.

8. Despite accurate device temperature testing, when the body temperature is as low as 97.5°F or the accepted normal 98.6°F is safely measured not to exceed 99°F measured by accurate thermometer device is not a person that must be made to wear a mask in religious assembly; and
9. As a matter of science omitted separate and apart from the political compelling of improper mandate by Defendants to use a mask regarding the nature of effectiveness and physical danger to health threat involved mask use; and as such Strunk's fellow

-
- Recent studies suggest that normal body temperature may be falling over time to well below the commonly accepted measure of 98.6° F. An analysis of 20 studies between 1935 and 1999 found that the average oral temperature was 97.5° F. And a 2017 study of more than 35,000 people found a similar result.

Two key possibilities are:

- Lower metabolic rate: One of the biggest determinants of body temperature is your metabolic rate. Like a car engine that's idling, your body expends energy just keeping things going, and that generates heat. A lower metabolic rate in modern times could be due to higher body mass (some studies link this with lower metabolic rate), or better medical treatments, preventive measures, and overall health.
- Lower rates of infection and inflammation: In Wunderlich's day, tuberculosis, syphilis, chronic gum disease, and other inflammatory conditions that can raise body temperature were common, and treatments were limited.

Why body temperature — and changes over time — matter

Body temperature is vital to health — that's why it's among the "vital signs," along with blood pressure, heart rate, and breathing rate routinely checked by your doctor. These measures are absolutely critical when evaluating someone who may be sick, because significant abnormalities can indicate major, even life-threatening, illness.

Thousands of chemical reactions occurring simultaneously and continuously in the body require a rather narrow range of temperature. As a result, the body does not tolerate wide fluctuations in temperature very well. In fact, severe hypothermia (low body temperature) or hyperthermia (high body temperature) may cause permanent organ damage or death. That's why the body has such an elaborate thermoregulation system that keeps the body's temperature close to ideal most of the time.

Fever is typically any temperature above 100° F. The most common cause of fever is any infection in the body, but there are other causes, including heat stroke or a drug reaction. Although you can be sick with a normal temperature, body temperature is clearly an important and useful indicator of health.

Metabolic rate, infection, and inflammation in the body all influence human health and longevity. So, a falling average body temperature over the last century and a half could reflect important changes and warrant additional research.

Trustee of the AD HOC NEW YORKER REPUBLICAN COMMITTEE who has blood type O and less threatened by the virus according to the study shown at Exhibit 4, is my associate retired injured veteran Harold William Van Allen — former US Navy Salvage Diving Officer, university research engineer in hyperbaric medicine researcher, bio-materials, marine materials researcher with clinical medical research-student nurse-engineer. d.b.a. Passive Aerobic Health Care and Fitness Devices (medical device design) VanAllen Research Foundation hyperbaric oxygen research experiments published in the Undersea Medical Society Journal; and

10. Trustee Van Allen participated for several years with the Veterans Administration multiyear Lupus (SLE) as a patient receiving PLAQUENIL; and
11. Trustee Van Allen as an expert, questions the political conflict of interest associated with the respective spouse of Fauci and Birx who universally use a collective virtue signaling for mask wearing — a professional conflict of interest for safety and efficacy of mask use; and
12. That Fauci/Birx appear to ignore or are oblivious to mask / respiratory mask and face covering issues:
 - a. Vital Capacity
 - b. Residual Forced Volume
 - c. Respiration Rate
 - d. Tactile Oral Nasal Mask Effect
 - e. Full Face Masks
 - f. Face Guards
 - g. Oral Nasal Surgical Masks
 - h. Cloth Face Coverings
 - i. Diving Reflex
 - j. Oral/Nasal Region Tactile Receptors
 - k. Blood Gas Chemical Receptors
 - l. Apnea
 - m. Hypercapnia
 - n. Carbon Dioxide Ventilatory Dead Space
13. That the John Hopkins School of Medicine has conducted Pulmonary Function Tests (PFTs) that are noninvasive tests that show how well the lungs are working. The

tests measure lung volume, capacity, rates of flow, and gas exchange. This information can help your healthcare provider diagnose and decide the treatment of certain lung disorders; and

14. There are 2 types of disorder problems with air moving in and out of the lungs:
 - Obstructive. This is when air has trouble flowing out of the lungs due to airway resistance. This causes a decreased flow of air.
 - Restrictive. This is when the lung tissue and/or chest muscles can't expand enough. This creates problems with air flow, mostly due to lower lung volumes.
15. PFT can be done with 2 methods. These 2 methods may be used together and perform different tests, depending the information that a healthcare provider is looking for:
 - Spirometry. A spirometer is a device with a mouthpiece hooked up to a small electronic machine.
 - Plethysmography. You sit or stand inside an air-tight box that looks like a short, square telephone booth to do the tests.

PFT measures:

 - Tidal volume (VT). This is the amount of air inhaled or exhaled during normal breathing.
 - Minute volume (MV). This is the total amount of air exhaled per minute.
 - Vital capacity (VC). This is the total volume of air that can be exhaled after inhaling as much as you can.
 - Functional residual capacity (FRC). This is the amount of air left in lungs after exhaling normally.
 - Residual volume. This is the amount of air left in the lungs after exhaling as much as you can.
 - Total lung capacity. This is the total volume of the lungs when filled with as much air as possible.
 - Forced vital capacity (FVC). This is the amount of air exhaled forcefully and quickly after inhaling as much as you can.
 - Forced expiratory volume (FEV). This is the amount of air expired during the first, second, and third seconds of the FVC test.

- Forced expiratory flow (FEF). This is the average rate of flow during the middle half of the FVC test.
- Peak expiratory flow rate (PEFR). This is the fastest rate that you can force air out of your lungs

16. Normal values for PFTs vary from person to person. The amount of air inhaled and exhaled in your test results are compared to the average for someone of the same age, height, sex, and race. Results are also compared to any of your previous test results. If you have abnormal PFT measurements or if your results have changed, you may need other tests.

Why might I need pulmonary function tests?

17. There are many different reasons why pulmonary function tests (PFTs) may be done. They are sometimes done in healthy people as part of a routine physical. They are also routinely done in certain types of work environments to ensure employee health (such as graphite factories and coal mines). Or you may have PFTs if your healthcare provider needs help to diagnose you with a health problem as a matter of complexity such as:

- Allergies
- Respiratory infections
- Trouble breathing from injury to the chest or a recent surgery
- Chronic lung conditions, such as asthma, bronchiectasis, emphysema, or chronic bronchitis
- Asbestosis, a lung disease caused by inhaling asbestos fibers
- Restrictive airway problems from scoliosis, tumors, or inflammation or scarring of the lungs
- Sarcoidosis, a disease that causes lumps of inflammatory cells around organs, such as the liver, lungs, and spleen
- Scleroderma, a disease that causes thickening and hardening of connective tissue PFTs may be used to check lung function before surgery or other

procedures in patients who have lung or heart problems, who are smokers, or who have other health conditions.

- Another use of PFTs is to assess treatment for asthma, emphysema, and other chronic lung problems. Your healthcare provider may also have other reasons to advise PFTs.

What are the risks of pulmonary function tests?

18. Because pulmonary function testing is not an invasive procedure, it is safe and quick for most people. But the person must be able to follow clear, simple directions. All procedures have some risks. The risks of this procedure may include:

- Dizziness during the tests
- Feeling short of breath
- Coughing
- Asthma attack brought on by deep inhalation

In some cases, a person shouldn't have PFTs. Reasons for this can include:

- Recent eye surgery, because of increased pressure inside the eyes during the procedure
- Recent belly or chest surgery
- Chest pain, recent heart attack, or an unstable heart condition
- A bulging blood vessel (aneurysm) in the chest, belly, or brain
- Active tuberculosis (TB) or respiratory infection, such as a cold or the flu

19. Risks may vary depending on your general health and other factors. Requires advice from a healthcare provider which risks apply most to you. Talk with him or her about any concerns you have. Certain things can make PFTs less accurate. These include:

- The degree of patient cooperation and effort
- Use of medicines that open the airways (bronchodilators)
- Use of pain medicines
- Pregnancy
- Stomach bloating that affects the ability to take deep breaths
- Extreme tiredness or other conditions that affect a person's ability to do the tests (such as a head cold)

How do I get ready for pulmonary function tests?

20. Any healthcare provider will explain the complexity of the procedure to you. Ask him or her any questions you have. You may be asked to sign a consent form that gives permission to do the procedure. Which is not done when compelling of mask use by Defendants - will result in user injury.
21. Mask use must take into consideration any user medicines. that includes prescriptions, over-the-counter medicines, vitamins, and herbal supplements. Make sure to:
- Stop taking certain medicines before the procedure, if instructed by your healthcare provider
 - Stop smoking before the test, if instructed by your healthcare provider. Ask your provider how many hours before the test you should stop smoking.
 - Not eat a heavy meal before the test, if instructed by your healthcare provider
 - Follow any other instructions your healthcare provider gives you
 - Your height and weight will be recorded before the test. This is done so that your results can be accurately calculated.

What happens during pulmonary function tests?

22. As an outpatient procedure that means you go home the same day, or may be done as part of a longer stay in the hospital. The way the procedure is done may vary. It depends on your condition and your healthcare provider's methods. In most cases, the procedure will follow this process:
- You'll be asked to loosen tight clothing, jewelry, or other things that may cause a problem with the procedure.
 - If you wear dentures, you will need to wear them during the procedure.
 - You'll need to empty your bladder before the procedure.
 - You'll sit in a chair. A soft clip will be put on your nose. This is so all of your breathing is done through your mouth, not your nose.
 - You'll be given a sterile mouthpiece that is attached to a spirometer.

- You'll form a tight seal over the mouthpiece with your mouth. You'll be instructed to inhale and exhale in different ways.
- You will be watched carefully during the procedure for dizziness, trouble breathing, or other problems.
- You may be given a bronchodilator after certain tests. The tests will then be repeated several minutes later, after the bronchodilator has taken effect.

What happens after pulmonary function tests?

23. If you have a history of lung or breathing problems, you may be tired after the tests. You will be given a chance to rest afterwards. Your healthcare provider will talk with you about your test results.

24. Hopefully the Court can appreciate the levels of complexity shown above that shows much at risk when Defendants outrageously compel a mask wearing by a healthy Jew for Schul is a Star of David compliance badge, is similar as if under Shariah law, now under color of Gov Cuomo's executive order is infringement of Strunk - Trustee's 1st 4th 5th 9th 10th rights infringement by fundamental denial of due process of 42 USC 1983 without equal protection treatment for religious assembly also applies to outside gatherings absurdly right down to the design of menus; and all is Defendants tortuous interference with Assembly that protects the mask of submissive compliance that like the symbol of the Roman Cross per se is the symbol of torture and death by asphyxiation - why not mandate a guillotine instead; and

25. Further, the Court even denied Strunk-Trustee FRCvP 24 (b) permissive intervention

(1) *In General.* On timely motion, the court may permit Strunk-Trustee to intervene who:

(A) is given a conditional right to intervene by a federal statute as is used by Plaintiffs under 42 USC 1983 with related law; and

(B) Strunk-Trustee has a claim that shares with the main action a common question of law or fact notwithstanding as evidence of ongoing injury the State tort claim shown in Exhibit 7, is nevertheless a permissive intervention matter associated with Defendants tortuous interference with November election who promote voting by mail notwithstanding requirements of NYS Election Law, NVRA / HAVA, and 18 U.S. Code §1951 - Interference with commerce by threats matter herein that may be similarly applied to Plaintiffs; and

26. Further in the matter of unconstitutional mask mandates imposed by state governors notwithstanding the clown DJT foolish nonsense statement that to wear a mask is patriotic, challenges Strunk Trustee to exhaust available relief passively signed a petition at: <https://petitions.whitehouse.gov/petition/potus-trump-sign-executive-order-make-mandatory-mask-wearing-unlawful> demands POTUS TRUMP TO SIGN AN EXECUTIVE ORDER TO MAKE MANDATORY MASK WEARING UNLAWFUL. Created on July 15, 2020 Needs 19,342 signatures by August 14, 2020 to get a response from the White House 80,658 SIGNED 100,000 GOAL, quote:

The mandatory mask wearing orders put out by the states governors, are NOT backed by any legitimate law. The mask does NOTHING to prevent the spread of COVID-19, and is being used as a social control apparatus. Even Dr. Fauci said that the mask is ineffective to combat this virus, and the CDC has put out a memo stating the same. NO ONE should be made to wear a mask, it is a SUGGESTION ONLY. This is getting WAY out of hand, and causing a lot more harm than good. Something must be done!

27. Further, Strunk-Trustee spoke with the Democratic Party Warren County Board of Elections Commissioner Kimberly Ross to ascertain if masks are mandatory for voting at the 3 November 2020 General Election; to wit she stated that masks are voluntary and if not worn a mask or plastic visor will be offered to wear while voting in person, and if rejected the Voter may use a machine properly spaced from other voters; and

28. Further, if a qualified voter is ill or disabled, under election law /state constitution, may request an absentee ballot be mailed for return to the County, and the so-called vote by mail proposal shown to be outside the law must be stopped to prevent fraud.
29. Were there no appearance of duplicity in the decision to assemble Jews and Christians in groups larger than ten as long as they all submit in compliance to adorn a mask or be exterminated like the Uyghurs native to the Xinjiang Uyghur Autonomous Region in Northwest China - is not farfetched?
30. In stark contrast is the professional bravery of Dr. Carrie Madej MD, a specialist in Vaccine Technology, who provides ⁽²⁾ the Proof that the Jesuit Order seeks to weaken the White Anglo-Saxon-Celtic Protestant Nations to further destroy the Reformation and Western Civilization to complete the unfinished work of the grand inquisitor Sir Thomas More that for him ended in the Red Mass of 1535, then to be assumed by the Jesuits; and whose efforts were expressed by Father Leonard Edward Feeney S.J. (February 18, 1897 – January 30, 1978) of the Commonwealth of Massachusetts homegrown version of Father Charles Coughlin for his anti-Semitism, articulated a particular interpretation of the Roman Catholic doctrine extra Ecclesiam nulla salus ("outside the Church there is no salvation"); took the position that baptism of blood and baptism of desire are unavailing; and therefore no non-Catholics will be saved whence he fought against the liberalization of Catholic doctrine acted to convert Jews to the sacrifice of the Cross, and came under ecclesiastical censure.

² <https://www.youtube.com/watch?v=NUMHPeKu94w>

31. Were it in the Courts capacity to consider Modifying DNA? Understand that mutating DNA so as to weaken and reduce Americans and Canadians is in preparation for North America's future Sino-Soviet-Muslim Invasion, and perish the thought that the Court would serve justice in regards to the Jesuit vaccine promoted by Jesuit Fauci and Jesuit Redfield and Jesuit Gates and Jesuit Trump must be imposed if the Sons of Shem are to repossess the "tents of Shem" pitched in the land of Shem as per Genesis 9:27. If the Risen Son of God does not intervene, and if Satan's Jesuit-ruled, the Jesuit run Vatican Empire has its way, the White-raced peoples (along with the Blacks) will be finished in North America by 2050 or thereabouts.
32. Were the Court capacity in a different venue, at best Fauci, Birx, Redfield must lose their license for Malicious Malpractice; however Petitioner meets the rule herein.

PETITIONER PRAYER OF RELIEF THAT THE COURT GRANT

- A. Petitioner - Affirmant Plaintiff-intervener standing;
- B. A hearing on the above issues with briefing schedule;
- C. An information subpoena of Defendants and named persons;
- D. An order to allow NEW YORKERS to seek medical treatment if necessary;
- E. An order prohibition of interactive surveillance and control system injections;
- F. An order of Defendants to strictly adhere to the New York State Election law; and
- G. Such other and different relief deemed necessary for Justice herein.

Christopher Earl Strunk Trustee for Ad Hoc New Yorker Republican Committee declare, certify, verify, and state under penalty of perjury that the foregoing is true and correct with 28 USC §1746.

Sincerely,

Ad Hoc New Yorker Republican Committee

Dated: July 23, 2020

Lake Luzerne, New York



Christopher Earl Strunk in esse Sui Juris in propria persona
Trustee for the Ad Hoc New Yorker Republican Committee
All Rights Reserved Without Prejudice

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF NEW YORK

REV. STEVEN SOOS et al.,

Plaintiffs,

20-cv-651 (GLS/DJS)

v.

ANDREW M. CUOMO et al.,

Defendants.

AD HOC NEW YORKER REPUBLICAN COMMITTEE INTERVENTION TO
ENLARGE THE PRELIMINARY INJUNCTION TO RESOLVE DEFENDANTS'
DEVICES FOR SOCIAL SCORING, TORTUOUS ELECTION INTERFERENCE
AND NANO-TECH SYSTEMS FOR UNCONSTITUTIONAL SURVEILLANCE

Exhibit 22



Harvard Health Publishing

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Time to redefine normal body temperature?

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Normal body temperature is 98.6° F, right?

That's certainly what we're all taught, and it's the right answer on a test. I know it seems crazy, but 98.6° F may not, in fact, represent the best estimate of normal body temperature. Not only that, but normal body temperature may be falling over time, according to data samples reaching back almost 160 years.



Where did 98.6 degrees come from?

In the mid-1800s a German physician, Carl Wunderlich, measured axillary (armpit) temperatures from about 25,000 people and found that the average was 98.6° F (37° C). And so we've believed that ever since.

But more modern studies have called this time-honored truth into question, and have found that

- Body temperature varies over the course of the day. It tends to be higher later in the day.
- It also varies among individuals. Women tend to have higher body temperature than men, and younger people tend to have higher temperatures than older folks.
- Recent studies suggest that normal body temperature may be falling over time to well below the commonly accepted measure of 98.6° F. An [analysis of 20 studies](#) between 1935 and 1999 found that the average oral temperature was 97.5° F. And a [2017 study](#) of more than 35,000 people found a similar result.

On this last point, a remarkable new study is among the best to make a case that normal body temperature has been drifting down over the last two centuries.

Are humans getting cooler?

In this study, researchers analyzed temperature recordings from three periods of time over 157 years:

- 1860–1940: A mix of armpit and oral temperatures of nearly 24,000 veterans of the Civil War were measured.
- 1971–1975: Oral temperatures of more than 15,000 people from a large population study (the National Health and Nutrition Examination Survey) were analyzed.
- 2007–2017: Oral temperatures of more than 150,000 people in another large research project (the Stanford Translational Research Integrated Database Environment) were reviewed.

During the nearly 160 years covered by the analysis, the average oral temperature gradually fell by more than one degree. As a result, the “new normal” seems closer to 97.5° F.

This observation held up even after accounting for age, gender, body size, and time of day.

Why would average body temperature be falling?

Two key possibilities are:

- **Lower metabolic rate:** One of the biggest determinants of body temperature is your metabolic rate. Like a car engine that’s idling, your body expends energy just keeping things going, and that generates heat. A lower metabolic rate in modern times could be due to higher body mass (some studies link this with lower metabolic rate), or better medical treatments, preventive measures, and overall health.
- **Lower rates of infection and inflammation:** In Wunderlich’s day, tuberculosis, syphilis, chronic gum disease, and other inflammatory conditions that can raise body temperature were common, and treatments were limited.

What about changes in how body temperature is measured?

The method of temperature measurement varied in this latest research. But the researchers downplayed the possibility that different ways of measuring temperature might have affected the results. Average body temperature dropped even over decades of time when methods of measurement did not change.

Why body temperature — and changes over time — matter

Body temperature is vital to health — that's why it's among the "vital signs," along with blood pressure, heart rate, and breathing rate routinely checked by your doctor. These measures are absolutely critical when evaluating someone who may be sick, because significant abnormalities can indicate major, even life-threatening, illness.

Thousands of chemical reactions occurring simultaneously and continuously in the body require a rather narrow range of temperature. As a result, the body does not tolerate wide fluctuations in temperature very well. In fact, severe hypothermia (low body temperature) or hyperthermia (high body temperature) may cause permanent organ damage or death. That's why the body has such an elaborate thermoregulation system that keeps the body's temperature close to ideal most of the time.

Fever is typically any temperature above 100° F. The most common cause of fever is any infection in the body, but there are other causes, including heat stroke or a drug reaction. Although you can be sick with a normal temperature, body temperature is clearly an important and useful indicator of health.

Metabolic rate, infection, and inflammation in the body all influence human health and longevity. So, a falling average body temperature over the last century and a half could reflect important changes and warrant additional research.

The bottom line

While news that the normal body temperature may be drifting down over time is intriguing, it is not cause for alarm — and it doesn't mean the definition of fever should change. We'll need to rely on additional research to tell us how important these findings may be. In the meantime, it's probably time to abandon the assumption that 98.6° is a normal temperature. Something closer to 97.5° may be more accurate.

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POSTED MARCH 26TH, 2020 AT 7:37 AM

Ben

Does the body temperature rise during exercise, after running, or for female during their menstrual cycle.?

POSTED MARCH 20TH, 2020 AT 11:09 AM

Jennifer Lewis

Thank you for this timely information. I too have a low normal body temperature leading health care workers to delay treatment or concern. I have had to really learn to push and be my own advocate. I've had meningitis, pneumonia, and sepsis all with no (apparent) fever. I've been refused strep-tests because I wasn't febrile and now have permanent damage to two heart valves because of untreated prolonged bouts of streptococcus. I am a very active and healthy 47 year old woman and this has been pretty consistent my entire adult life (ha, well, not the 47 year old part). Of course I am currently concerned at being turned away from covid-19 testing, if the time comes, because my febrile temperature is lower than what they are taught to use as guideline.

POSTED MARCH 19TH, 2020 AT 7:48 PM

Jane Aronson

I too have a lower body temperature around 96.7 a.m. and 97.6 or so p.m. I am healthy, and have had a lower body temperature all my life. I was a very active child and throughout my adult life. Even when I had the Hong Kong flu in 1968 my temperature only went to 100.2 or so; Therefore I was considered as having a mild case – it was not mild. Although I am rarely ill, when I am it's under diagnosed because my body doesn't react with fever. I certainly not alone in this body type.

POSTED MARCH 16TH, 2020 AT 1:13 PM

Sean R Lydon

Good article. I'm a 56 yo male, overweight, with hypothyroidism. My body temp averages 95.6 and my heart rate baseline is 49. For some individuals like me, clinicians may often very easily miss a diagnosis of infection because a high temp is closer to 98, not 100. The implication is that proper treatment is not prescribed due to over-caution in antibiotic stewardship because there is no "fever".

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